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Archaeology of Iran in the Historical Period

Springer

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Preface

This book was planned to facilitate a new perspective, the *Study of Archaeology of Iran in the Historical period*. First of all, we must explain the term historical period. The term conventionally is used for the archaeology of literate societies. Thus, historical archaeology is a vehicle for exploring those communities that had access to writing and that leave conventional documentary record of their experiences. In the Near Eastern context, the historical period has traditionally taken the first appearance of the early writing system (ca. 3600 BC) as its starting point and the rise of Islam (mid-seventh century AD) as its terminus. The beginning of history is marked by the invention of writing by Sumerians in the southern Mesopotamia around fourth millennium BC though, in some later times, it has been extended to comprise many preliterate peoples of communities which were living after history began but they have never experienced writing. Such definition, however, differs from the now widely acknowledged definition of world historical archaeology as for the European and most Western archaeologists. Historical archaeology is the archaeology of those societies developing in the wake of the European Middle Ages (where the reformation, mercantile capitalism and industrialization all ruptured the previous order of things) and of those emerging in regions of the world that were colonized by Europeans and that developed along a new multiethnic trajectory.

The chapters in this volume illustrate how current archaeological research on the Iranian archaeology helps us understand the conditions that lead to the development of variety of approaches; it uses evidence from field studies and offers methodological speculations about the Iranian historical archaeology as well. The volume draws mainly from the fields of practical archaeology which traditionally has shared little in the way of theories and methods. The 28 essays, written by an international team of scholars, represent efforts to provide crucial pieces to the puzzle of Iranian cultures for their national identity from a historical perspective. Collectively, they consider whether the processes in the development of Iranian archaeology simply made use of pioneering foreign and Iranian archaeologists already in place at the beginning of 20th centuary. They also consider the possibility of an active role of archaeologists in their own development and query how bring to an end the vulnerability of Iranian archaeology occurred due to changes in the international political environment or fluctuations related to government funding.

In the world's immense political conflicts, some may tend to talk about Iranian negative aspects via negative images. However, this region has contributed to the foundation of elements necessary in all modern human societies. Therefore, we believe that the importance of cultural Iran cannot be underestimated and it is to be realized again, and if this book contributes to this purpose, we would achieve our goal.

Iran today, takes its name from the Aryans, an Indo-European nomadic people originally from somewhere in Central Asia, who in several migrations entered the high plateau in the second millennium. BC scholars are apt to think of the present country as Persia and of Iran as being the much large territory of the past which included part of the Caucasus, Central Asia, Afghanistan and Iraq, all of which were Iranian or partly Iranian in language and culture.

Geographically, the plateau of Iran covers not only current Iran but also other countries, including Armenia, Azerbaijan, Turkmenistan, Uzbekistan, Tajikistan, Afghanistan and some parts of Kyrgyzstan, Pakistan and China as the main core of Iran during historical eras. Today, Iran includes more than the half of the Iranian plateau. This plateau is bounded to the shores of the Caspian Sea and the Elburz Mountain range from the north, to the Zagros Mountains from the west, to the Bārez Mountain range from the south and to the Hindu Kush Mountain Range from the east. The great plateau of Iran overlooks the great plateau of Tibet.

Based on historical documents, the kingdoms of the Medes, Achaemenid, Seleucid, Parthian and Sasanian lasted more than 1300 years in the vast region of the Middle East between ca. 673 BC and 651 AD named as the historical era of Iran.

In the simplest term, the prehistoric era is the era when human had not been able to invent the writing. About 3600 BC, human succeeded in inventing the writing. In 3600 BC, Sumerians, the inhabitants of the southern areas of the Middle East and Elam Civilization in Khuzestan, were the first users of the writing. Moreover, new research shows that the Jiroft civilization in Iran can be considered as the first users of the writing.

One of the great changes in human life is urbanization. One of the main signs of urbanization is the writing. Although the city in its specific sense was formed in the late fourth millennium BC, it existed in Iran in the third millennium BC. The city of Susa is one of the oldest known settlements in the region. Evidence of urbanization in the third millennium can be recognized in the various parts of Iran, including Tepe Hasanlu and Haftwan Tepe in Azerbaijan, civilization of Tepe Sialk in Kashan, Tepe Hisar in Damghan, Tepe Gyan in Nihavand, Godin Tepe in Kangavar, Shah Tepe and Tureng Tepe in Gorgan plain, Tepe Qabristan in Buein Zahra of Qazvin, Susa in Khuzestan, Jiroft civilization, Tepe Yahya and Shahdad in Kerman, Tall-Malyan in Fars and Shahr-e Sukhteh in Zabul.

At the end of the Bronze Age, the discovery of iron (the beginning of the Iron Age) as well as the important historical and cultural events in the second millennium BC led to the formation of dynasties and the emergence of the first independent states in the first and second millennia BC. The first immigrants who came to Iran before the Medes were Kassite, Lullubi and

Gutian. The Kassites established a great civilization that shaped many of the cultural foundations of ancient Iran. Lullubi and Gutian also settled in the central Zagros, and after the Medes resided, they were obliged to follow and join them. From 3200 to 640 BC, the Elamites as the first centralized power in the south-west of the present land of Iran were considered as the beginning point to transfer the thought, art and civilization of the Iranian plateau to other civilizations around it, such as Mesopotamia and Egypt. In fact, the Elamites were one of the oldest tribes of the Iranian plateau who used the writing.

Local governments, including Mannea, Urartu and Medes, emerged. Some evidences show migrations to the Iranian plateau, the emergence of independent governments instead of the government of former cities, the aggregation of different tribes, especially in the different parts of Iran; each one had its own territory. These ethnic groups were the neighbours of Urartu and Assyria in the north-west of Iran.

According to Assyrian sources, Urartu is located in a mountainous region in the south-east of Van Lake. From the same sources, we know that in the territories in which Urartu will extend, there were the countries of Nairi and Uruaṭri (thirteenth–ninth century BC), from whose union, in an unspecified moment of the ninth century, Urartu was born. Between the second half of the ninth and the second half of the seventh century BC, the Urartian state was able to control an area that went from the course of the Euphrates to almost the Caspian Sea. We do not know when and who was responsible for the collapse of Urartu, which probably occurred in the second half of the seventh century BC, probably a few years after the fall of the Assyrian Empire.

The Medes who were one of the tribes in the west of Iran settled in a land later known as "Medes" in the seventeenth century BC. The name of Mede is written "Madai" in the Greek language, "Māda" in the ancient Persian language and "Mādāya" in the Assyrian and Babylonian languages. The first information about the Medes dates back to Assyrian almanacs. In fact, they ruled over and beyond the Iranian plateau from the eighth century BC to the emergence of the Achaemenid dynasty. The Scythians were defeated by the Kiaksar. He fought with the Assyrian and allied with the Babylon to defeat them. After they defeated the Assyrian, the Babylonian Ruler, Bukhtanaṣar, established a great deal of military ramparts on the northern borders of his homeland due to his fear of attacks on his land by the Medes. Eventually, the kingdom of the Medes was eradicated by the Achaemenids; therefore, the Medes became one of the important tribes along with the Persians. Cyrus the Great established the Achaemenid dynasty in 559 BC, and in 550 BC, he overcame the Medes.

At first, the name "Parsua" was mentioned about the lake of Urmia in the Assyrian almanacs. The Achaemenid Kingdom or the Achaemenid (BC 330–559) are considered as one of the most powerful empires of the ancient world. The Achaemenid succeeded in bringing together different tribes and races with different religions and languages in their kingdom over 200 years of their ruling, with a vast range including the Middle East, Asia Minor, Central Asia and some parts of Egypt and India.

After the Greek attacked in 330 BC, and Darius III died, the Achaemenid Empire was replaced with the empire of Alexander Macedonia. After the death of Alexander (323 BC), his conquered lands were divided among his principals. Most of the Asiatic occupations of Alexander, Iran as the core of them, were given to Seleucus I at first. Thus, Iran came under the ruling of the Seleucid. The Seleucid was a Greek state that commanded Western Asia between 312 and 64 BC. The Seleucid Empire was founded by Seleucus I.

After a while, the Parthians who expanded their influence were able to eradicate the Seleucid eventually. The monarchy of Arsacid (Ashkanian), also known as the Parthian Empire, as one of Iran's political and cultural powers ruled in the great part of Western Asia for 472 years. The founder of this dynasty was called "Ashk" or "Arashk".

This empire was established by "Ashk" as the leader of the tribe of Parni in the third century BC after the conquest of Satrap of Parthia in the north-eastern part of Iran. Afterwards, he rebelled against the Seleucids. Mehrdad I (138–171 BC greatly expanded the Parthian territory) occupied the areas of Med and Mesopotamia. Within the years of its sovereignty, the range of the territory of the Parthian state included from the Euphrates River to the Hindu Kush as well as from the Caucasus Mountains to the Persian Gulf. This empire became the centre of business due to the location of the major commercial road of Khorasan within the scope of the Parthian ruling as well as the trading route between the Roman Empire and the Mediterranean and the Han Empire in China. The Scroll of the Parthian Empire was torn apart by Ardeshir Pāpakān in 224 AD, and the Sasanian Monarchy occupied the ruling of the great previous empires.

When the Sasanian prince Ardashir defeated the last Parthian King in about AD 224, he became heir to one of the three great empires which controlled much of the then civilized world. To the east of the new Sasanian Empire was China, to the west the Romano-Byzantine empires. These three powers were linked by a vigorous trade bringing silks and spices to Rome, and Roman gold and artefacts to the east. The Sasanians were able to profit from their strategic central position not only exact taxes on this trade but also frequently to control it. From the third to seventh centuries AD, the Sasanian state controlled a vast area stretching from the Euphrates across modern Iraq and Iran and into Central Asia and Afghanistan. The Sasanian dynasty was one of the empires of ancient Iran, dating from 224 to 651 AD. The Sasanian Empire extended from modern Afghanistan in the east to Mesopotamia, and some parts of Anatolia and Armenia in the west. The Sasanians were a powerful rival for the Roman Empire. The close connection between the religion and law in Sasanian society caused creation of a powerful religious–political administrative structure. Zoroastrianism was the only state religion of the Sasanians, and this ideology was remained the foundation of legal system; thus, both of the state officials and religious authorities were engaged in the administration organization.

Nevertheless, the Sasanians have a special place in Iranian history. The Sasanians can be considered as the representation of the culture of the Iranian historical era and its carrier to the Islamic era. The legacy left from the

Sasanians was much larger than their failure against the Arabs: formation of the concept of Iran as a culture and nation. In fact, the Sasanians revived the identity formed during the course of history creating the concept of "urbanism". Subsequently, most of concepts formed during the dynasty of the Sasanians were transferred to Islamic eras; therefore, Bouyah created himself a genealogy in order to link himself to the Sasanians.

This complex diversity has encouraged us to gather information about "Archaeology of Iran in the Historical period". In this collection, we gathered articles from scholars all over the world to add newer information to our previous knowledge.

Archaeologists have found original accounting tablets from the different cities of Iran, including Chogha Mish, Tepe Yahya, Tepe Sialk, Tall-e-Malyan, Qoli Darvish, Uzbaki and Tepe Sofalin near Varamin. Morteza Hesari, a recent site excavation, shows in the article "How to develop and use of Proto-writing in ancient Iran" that around 5300–4800 BC, the first documentary, the first written document, was presented in Ancient Iran.

Urartu which was one of the largest areas of the north-west of Iran was extended from Tushpa in the Van Lake on a large land from the Euphrates to the Aras River. They built large and small fortresses to protect their own areas under their sovereignty and defended the inhabitants of their homeland against the successive attacks of their enemies. For centuries, Urartu had conflicts with the Assyrian, as well as the rulers of Manna, a kingdom in the south of Urmia Lake. In the middle of the seventh century BC, major Urartu sites in Iran, Armenia and Anatolia endured numerous deadly attacks. The author of the article "The Kingdom of Urartu in Northwestern Iran (9th–7th centuries BC)" shows how Urartu was forgotten.

One of the most important complexes in Iran is Kazem-Khan Castle, also known as Kazem Dashi; it is also one of the most important castles in whole area of Urmia Lake Region. The structures were built mostly on the top of a huge natural rocky outcrop, often carved directly on the bedrock. The rock outcrop which host the fortress was probably an island during the Urartian times when the levels of the lake were higher than today. In the north of the castle of Kazem-Khan, there is another similar peninsula called "Kharsak" or "Kharsang". The authors of the article, "Kazem Khan: a fortress on the western side of the Lake Orumiyeh Basin, Iran", provide a study of these important complexes.

The relations between Iran and northern Mesopotamia can be understood from prehistory. Such relations in the fourth millennium BC led to the formation of a commercial network that peaked in the third millennium BC. However, although the relationship with Iran is definitely a part of this trade, there is no precise information about its details. The author of the "Assyrian exploitation of Iranian territories" has tried to provide this information on the basis of Assyrian written sources.

Whether the borders are generally in line with the cultural boundaries in the same or opposite regions can be easily recognized by most of archaeologists. However, the present study shows that the pre-Iranian route connecting the southern parts of Asia to Babylon is known as the route of Khorasan in the Islamic sources. The author of the article "On cultural

boundaries and languages in western Iran: the case of the Zagros Gates" attempts to show, based on geographic factors, that the region has created a certain cultural form for several millennia.

A narrative of the background of Herodotus informs us of the clothing, history and religion of Scythian as well as their Gods. Goddess of the earth is one of these Gods in the narrative of Herodotus, and the author of the article "Scythian and Zoroastrian earth Goddesses: a comparative study on Api and Ārmaiti" will provide us with more details about them in this article.

Death and what awaits one's soul afterwards have always been significant in antiquity, giving rise to different beliefs. The author of the article "Elamites' fear of the underworld judgment according to Elamite texts" shows Elamite Inšušinak is among these supreme deities. Inšušinak and judgement in the underworld has yet to be studied, and this paper focuses on whether the Elamites feared Inšušinak's underworld judgement. Additionally, Inšušinak was the "Deity of the Deceased and Graves", and his assistants in the underworld were Išmekarab and Lagamal.

The bronze pins of Luristan which are different and interesting were used during the first and second millennium BC. Examples of these pins which have been discovered among the layers of sites in different regions have been made in different ways and in diverse styles and designs. Various types of metals, such as iron and silver, and alloys, such as bronze and sometimes, a combination of various metals (combination of bronze and iron) is used in their manufacture.

In the article "Introduction and analysis of Luristan Bronze pins in the National Museum of Iran", the authors have tried to study the different aspects of this group according to the findings of the Iron Age of Iran.

Pillar base was founded in the project of Bukan archaeological researches. It seems that this base was discovered from the Qalaychi Site in an unauthorized excavation and then, was transferred to its current location. In the article "A decorative column base from Bukan region (NW Iran) and some remarks on its dating's and artistic tradition", the authors have tried to evaluate this finding.

There are several important stelae of Urartu in the north-west of Iran. Kaleh-Shin pathway is one of the well-known trails of the first millennium BC in the north-west of Iran. The first half of the seventeenth century was the time when the power of Urartu in that area expanded more than other times. In the article "The evidence of Mannaean in Western Hasanlu", we will understand how the Manna took control of the area after this period.

Some parts of Europe were affected by the great developments resulting from the victory of the Pars in the Middle East. Prior to such a victory, the dynasties of Assyria and Urartu were eradicated, and the Medes gained the power of sovereignty. Ancient sources indicate that some people groups of these areas immigrated to Europe. The author of the article "The European connections of the Median Period" indicates that some of the immigrants of this period may have reached these areas exploring an area in Eastern Europe. Knowledge of the buildings related to the period of Mede in the western

regions of Iran has long been the subject of research by a group of archae-ologists. However, the effects of the architecture of this period can be found even in the regions of Khorasan and in Turkmenistan today.

Since the discovery of a castle in the Nush-i jan Tepe of Malayer and a series of warehouses of Godin Tepe in Kangwar, a list of Medes Castles have not been added to it yet. The author of the article "The citadel of Ulug-depe and the Median forts in western Iran" argues that Ulug-depe will answer some of the questions to fill the archaeological and geographic gap of Khorasan Province compared with the historical monuments of Central Asia.

The focus of this article is on a controversial notion that is often seen in the works of the Achaemenid Period: for example, the winged tablet is an adaptation of the art of the Urartu and Assyria. The author of the article "Contributions for the identification of the human bust on a Winged Disc in Iranian arts" believes that the solar disc probably refers to the great Zoroastrian God, Ahura Mazda, which later appeared in the Sasanian Period. Due to the fact that the Achaemenid Period is well-known, there are still many unresolved problems, especially in the architectural art. It is difficult to reveal how large Achaemenid buildings have been constructed; therefore, it is a great challenge for archaeologists. Due to the fact that the evidence related to the architecture of the Achaemenid Period is scarce, it has been difficult for us to know it. Considering the use of advanced methods in building and the skills of the builders in this construction, it is completely impossible that this architecture has not been experienced elsewhere. Therefore, looking at the article "Some reflexions about possible Urartean influences in the development of the Iranian architecture until the very beginnings of the Achaemenid Period", we will get more familiar with the changes and developments of this architecture.

The signs of an umbrella in the Achaemenid Period which were explored from Persepolis appeared in 1976. In the Akkadian Period, the evidence of the first umbrella in the ancient Middle East can be shown, and then, it was taken to Susa as booty. The author of the article "The Achaemenid parasol: symbol of authority and feature of Court Protocol" has reviewed this issue.

The network of routes connects provincial centres of Egypt in the west and India in the east to the heart of the Achaemenid Empire. Classical sources indicate that "Royal Road" management requires an official orga-nization to expand, modify, repair and provide services. In this network, the complex road did its task. The author of the article "Glimpse of highways network of Achaemenid empire: construction, maintenance, and services" has perfectly surveyed such an issue.

In spite of the domination of the Seleucids and the Parthians in the western part of Iran, very few formal architectural styles of this period have been discovered in central Zagros. The authors of the article "A New ionic type capital from the Shiyan plain: tracking an important monument of the Seleucid/Parthian Periods near the Khorasan high road, Kermanshah, Wes-tern Iran" provide us with new information on the existence of historical monuments of this period discovering the above parts of the pillars in the west of Islamabad and near the highway of Khorasan.

Ancient coins are not only a criterion for economic evaluation, but also highly help us as advertising merchandise. The first imitations in ancient Iranian coins in the third century BC will be discussed in the article "Some notes of numismatic evidence for imitation in Iran from the third to the first centuries BC".

The Parthians were known for their military strength and combat tactics. They used special weapons. The author of the article "Daggers in Parthian Iran" has investigated one of these types of usable weapons.

The expansion of rules related to mysteries in Rome has shown links with the Persian Mithra in the first and third centuries BC. The purpose of the article "From paganism to Christianity; the cults of Mithras and Persian Martyrs in the Imperial Rome" is to analyse the relations between the Mithra and its martyrs, which was transposed into the eras of Christianity by joining Iranian Sects in Rome.

Cave of Khorbās is one of the most prominent examples of rock architecture in the region of Persian Gulf. In this article, the structure of the site is discussed. Considering the features of the site, the existence of various historical sites around this region as well as the fact related to the discovery of several rocky tombstones in this region, it can be concluded that the engraving of the cave belongs to the historical period (Parthians or most likely the Sassanid Period). The author of the article "Archeological study of Khorbas cave on Qeshm Island" has considered the Cave of Khorbas based on the shape and position and its various uses including residential, defensive and religious aspects.

Although around the archaeological sites of Khorbas, there are 13 houses belonging to the rocky period until the late Islamic Era, but studying the researches of the authors in the article "Brief note from archaeological investigation of Parthian remains of Khorbas site, Qeshm Island", we will realize that the date of the carvings of this cave is not related to the era which is prior to the Parthian Period.

Tepe Pir-dooshan located near Sanandaj in Kurdistan Province, and archaeological researches have proven the cultural evidence obtained from this hill related to the Parthian Period. In this hill, only a well-known cultural course can lead to extended archaeological researches in a domain that are less known in the historical period, especially in the Parthian Period. The authors of the paper "Delimiting of Tepe Pir-dooshan, Kurdistan Province, Iran" have suggestions for this purpose.

The author of the article "A new view on the possible Reconstruction of the famous Clibanarius Graffito from Dora Europos" has challenged what has been known in relation to this role so far. This role belongs to an armoured horseman attributed to the Parthian Period.

Symbolic signs are important materials made by ancient artists at different periods. Symbolic signs signify the cultural, religious, artistic, even political and social structures of a state and a country in ancient eras. Some examples of symbols during the Sasanian Period, most influenced by religious and political guidelines, can be found in many artistic works left from the Sasanians, such as textiles, coins and carvings. The authors of the article

"Investigation on symbolic badges in Sasanian rock relief and stuccoes" show that they have religious origin by studying the symbolic signs in the Sasanian motifs.

Archaeological studies in Mesopotamia, central Zagros and south-west of Iran show that the number of archaeological sites increased in the Sasanian Period. The region of Abdanan is in a strategic position between these three cultural regions. Based on the archaeological investigations of the authors of the article "Landscape archaeology of Abdanan in the Sasanian Period", it became clear that the Sasanian sites followed a cluster pattern in the eastern part of the region which resulted from an economy depending on its main base in the central region with a cultivated plain and a livelihood strategy.

The sovereignty of the first king of Anushirvan is extremely important in the history of the relations between Iran and China. Initially, the King created a political and military alliance with the Hephthalites. This remarkable success was achieved by diplomatic methods. The author of the article "Relevance of diplomatic activities of Xusrō I, Anōširvān in China for the military and political situation in the Far East in 6th century" specified how the dynasties of the Sasanian allies got away in the east.

Since the late twentieth century, computer modelling has rapidly progressed in archaeology and anthropology, and has yielded interesting results that can help researchers investigate the validity of their hypotheses. Accordingly, the authors have taken steps in the last paper based on the simulation factor to test two hypotheses in the Sassanid Period in the region of Marv-dasht.

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How to Develop and Use of Proto-writing in Ancient Iran

Morteza Hessari

Abstract

The first earliest Tablets have been found by French excavations in Susa in the nineteenth century. The deciphered of Writing System of Tablets is at Beginning, but they bring light on the archaic Bookkeeping system and some writing evidences of Iranian Proto-writing Period. Archaeologies have been found the proto-writing tablets from other urban center of Iran such as, Choga-Mich, Geser, Malyan, Yahya, Shahre Sokhte, Godin, Sialk, Goli Darwish, Ozbaki and Sofalin. The archaeological levels cover Susa 2 and 3 in Khuzistan, Banesh in Fars and New Plateau in Iranian Plateau Zone. Apart from Iran and Mesopotamia proto-writing tablets have been found from Syrian and Turkey. The Tablets from Syrian and Turkey belong to only Late Uruk or pre Proto-Elamite phase. The present paper represents an attempt to the emergence of proto-writing in ancient Iran. The term "Proto-writing" refers high Culture period, with two pre and proto-Elamit Phases, dating roughly to the ca. 5300–4800 B.P. The tablets from this Period are the earliest writing documents in ancient Iran. The most of the ancient Iranian proto-writing Tablets are administrative documents recording.

The administrative tablets record varying quantities of goods or measure of the collection and distribution, for example herding of animal and grain by sign or sign combination. The second attempts a clear relationship between the proto-Elamite and proto-cuneiform scripts. The tablet format is a good indication of chronological development of writing in this Period. At the same time of Proto-Writing or high culture period, have been found Tablets from Mesopotamia, dating to the final stage of Uruk and Jamdat-Nasr Periods.

1 Introduction

Earliest Iran Bookkeeping system was maintained by an intellectual system that linked society at a large to a dual source of power which, over 5000 years, was never seriously challenged. So we go back in ca. 5500 years' age, in one part of the ancient near East time, it named high culture or proto-writing period, with necessary economic and social structure. This time is a part of urban culture in ancient Iran. The archaeological evidence for the emergence of high elites social extended to all of Iran in this

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period. The first large-scale expansion of ancient Iran pre and state-level society in the Proto-writing = high culture period (Pre Proto-Elamite and Proto-Elamite phases) established a network of social and economic interactions linking southern Mesopotamia with Syria, Anatolia and Iran. Proto-writing cultural materials found in sites along travel routes of all of ancient Iran. This expansion, in a quest for resources, set the stage for increased social complexity in the populated centers in regions of contact (Hessari 2011).

2 Archaeological Evidences of Proto-writing Societies in Iran

Some archaeological investigations concentrated on emergence of complex societies have been initiated in Iran in the past decade. Under the direction of Perrot, French archaeologists at Susa have re-examined sections left from earlier work on the Acropolis, conducted limited excavations, and produced a reliable, stratigraphically determined sequence extending from late Susiana times (6000 BC) to the end of the Proto-writing period (Perrot 1971, 1977). Excavations at Chogha Mish by Helen Kantour cover the complete chronological span from the Neolithic up to the Proto-Literate period and provide vital new information on cultural developments of late fourth millennium communities and early administrative systems (Alizadeh 1996). Both Sumner at Malyan, the ancient Elamite capital of Anshan (Sumner and Reiner 1974; Sumner 1986), and Young at Godin Tepe have unearthed large proto-writing settlements on the Iranian plateau which date to the late 6th millennium before (Young 1969, 1986; Weiss and Young 1975). Similar Proto-Elamite tablets have also been published from Tal-i Geser (Caldwell 1968; Whitcomb 1971) and Tepe Yahya (Lamberg-Karlovsky 1971; Damerow and Englund 1989). Through a series of diagnostic chronological markers at Tepe Yahya, Lamberg-Karlovsky has demonstrated the contemporaneity of these developments in eastern Iran with the more spectacular changes in Mesopotamia and

Khuzistan (Lamberg-Karlovsky 1972). Excavations at Shahr-i Sokhta (Tosi 1984) have presented evidence for craft specialization, and the work of Iranian archaeologists at Shahdad has shown the accumulation of wealth and, most likely, the beginnings of class stratification on the eastern Iranian plateau in the early 3d millennium (Hakemi 1997). From Central Iranian Plateau have been found some Sites with Proto-writing Period:

Tepe Sialk is situated between the innermost ridges of the Zagros Mountains and the Dasht-i Kavir salt desert, near the modern town of Kashan. The evidence from Sialk Period IV is similar to that from Godin V: tablets (which at Sialk are indubitably Proto-Elamite economic texts), ceramics, and seal impressions were found in an architectural complex situated on the highest part of the southern mound at the site (Ghirshman 1938).

Tepe Hissar, the largest known urban settlement in eastern central Iranian Plateau provided the primary archaeological record in the region, with its continuous habitation levels from the seventh to the fourth mill. years before. The importation of lapis and turquoise implies connections with the east, and at the same time links with the west have been documented by blank clay tablets reminiscent of Proto-Elamite tablets, and a cylinder seal (Tosi and Bulgarelli 1989). Other new excavated sites in central Iranian Plateau brought light on Proto-writing Period. At present our information's for this Zone comes from excavations at five sites. Arisman, Shogali, Ozbaki, Goli Darwish and Sofalin. Two of them, Arisman and Shogali, without and the rest are with protowriting Tablets (Map 1).

Arisman, 60 km southeast of Kashan suggest settlement activities over the whole area from the late 5th to the 3rd millennium BC. The oldest occupation of the so-called Sialk IV period illustrates craft specialization and administration system in central Iranian plateau (Chegini et al. 2000; Helwing 2005). Shogali 40 km southeast of Tehran. The Shogali sequence has a long settlement from seventh mill before to Islamic Period. The Proto-writing period has been found from Trench 6 (Hessari 2007, 2008).

Map 1 Distributions of Proto-Elamite sites in Iran

The site of Ozbaki is located 50 km west of Tehran, west of central Iranian Plateau. The site is a series of Tapes, and from Maral Tape found a single example of proto-writing Tablet (Majid-zadeh 2002). Goli Darwish lies 15 km Ost of Qom, 120 km south of Tehran. Much of the importance of this site lies in the late sixth millennium before date for bronze technology and several Tablets from proto-writing period (Sarlak 2010), and finally the site of Sofalin. Tape Sofalin lies in the eastern Rey Plain[1] of the central Iranian plateau, and north of the city of Pishwa. The cultural materials consist of sequence from the middle 6th millennium to the Iron Age III. Several proto-writing Tablets have been found from Sofalin. Tepe Sofalin provides a particularly clear illustration of cultural interaction in the end of sixth and early fifth millennia before between the Iranian central plateau and the more densely populated settlements on the alluvial plains of Khuzestan (Hessari 2011; Dahl et al. 2012). So Sofalin and Goli Darwish are important sites for understanding the transition to stratified societies and for comprehending the cultural processes which affected neighboring areas.

3 Before Writing Period

Although it is generally agreed that small clay objects, Tokens, may have functioned in prehistory as accounting devices, there exists in southwestern Iran no sequence of evidence from their extensive 8th and 7th millennium before occurrence to the period in which writing developed, sometime in the 6th millennium before (Schmandt-Besserat 1992). Indeed, such

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[1]The Rey plain is located in north-central Iranian Plateau at an elevation of between 800 and 1200 m. This semi-arid fertile plain is limited by the Alborz mountain range in the north and the Dasht-e-Kavir desert in the south.

objects are not common on 6th/5th millennium sites, a time when 'potters' marks', another plausible precursor of writing, are found in both Mesopotamia and Iran. The ancient oriental impressions of seals in some plastic materials, most frequently on clay have been traditionally employed as early staged of administrative system emergence. The study and analysis of the sealed surface may bring forth important evidence on ancient and economy and administration. The systematic inspections of the seal impressions on the surface of the clay can elucidate the main features of socially engineered movements of material goods bearing the sealings. The importance of early social developments from the view point of reciprocity and redistribution can establish a firm base concerning early social formations in general and birth of pre-states in particular. The impression seals on clay accompanying a given object visualize a relation between a personal properties and a social unit demonstrate in a particular office or perhaps institution. The most obvious case of between a certain social unit and properties of special kind can be illustrated within activities of controlling goods redistribution chain. The condition under which a practice of sealing may introduced exist only if a commodities sealed are transferred into different competence spheres and if it is important to identify both their dispatching agency and their distribution which materialized information between the two sides. However, there is some evidence of the before writing Period that represent a set of symbols of record and Bookkeeping system in prehistoric era. These administrative tools are seals, tokens and different Bullea or clay balls.

4 Seals

The stamp seals and stamp seals impressions are the oldest tool of administrative tool in ancient Near East. The motive of seals represents power and authority of own, communication and control of administrative activities. The used of them dated from Neolithic (Rashad 1990). The first Cylinder seals appear parallel of stamp seals in

Fig. 1 Cylinder seal and their modern impression, Tepe Sofalin

Fig. 2 Luck of pot, Tepe Sofalin

ca. 5200 years ago. The Cylinder seals carried some motifs, from simple geometric to highly naturalistic representation of animal and human (Amiet 1972; Fig. 1). In such centers, sealing techniques were an important component of their administrative technology (Wright and Johnson 1975). The sealings can be divided into mobile containers [sacks, pots (Fig. 2), baskets] and locks (devices for sealing doors) types (Figs. 3 and 4). Except ancient Iran urban centers in the 6 millennium before, at the same time had been found the same seals from Mesopotamia (Englund 1998: 43–44).

5 Tokens

The several thousand small clay and stone objects have been found from different archaeological excavations in ancient near east ruins. Sculpted

Fig. 3 Sealing door, Tepe Sofalin

Fig. 5 Clay and stone complex tokens

Fig. 6 Complex tokens, animal token

Fig. 4 Reconstruction of doors luck

and incised clay tokens, excavated from contexts as early as eleventh millennium BC contexts, have been cited as three-dimensional precursors for the first cuneiform signs (Schmandt-Besserat 1992: 6–7). Schmandt-Besserat is the first researcher that gathered and studied these small objects. She believes these objects use as the earliest accounting tools in ancient near east. She called them tokens. She has categorized them into plain and complex tokens. Simple baked tokens are ubiquitous artifacts found in administrative contexts across excavations in Iran and Mesopotamia. These tokens are also referred to as "counters", and represents on the basis of the

form and decorated goods and numbers or measures. Complex tokens, in addition to being plastically molded, have incised markings on the surface, which presumably added more detail to the information imparted by the plastic form alone (Figs. 5 and 6).

6 Bullea

Bullea or Clay hollow balls first appeared during Susa II period in Susa, Khuzistan, Iran, a phase of development of administrative technology in southwestern Iran and Mesopotamia (Late Uruk period). The first clay balls contexts with different tokens interior (Fig. 7) and stamp or cylinder seal impression on the exterior. These clay balls are found with tokens at Susa, Chogha Mish, Faroukh Abad, Goli Darwich and Sofalin in Iran. At Uruk the hollow clay ball in immediately followed by the appearance of early tablet with numerical signs. The other types of bullea or clay balls are not hollow. These groups contexts first impressed sign tokens on the exterior and then impressed stamp or cylinder seal on the exterior (Fig. 8). The

Fig. 7 Bullea, clay hollow ball, Tepe Sofalin

Fig. 8 Bullea or clay ball, Tepe Sofalin

last types of bullea are ovoid bullea (Fig. 9). The bulleas shows administration system in short before use of writing on the tablets (Schmandt-Besserat 1992; Boehmer 1999; Hessari 2011).

Fig. 9 Ovoid Bullea, Tepe Sofalin

7 High Culture Period

One of the main interests of archaeologists has been the study of process, or the study of change and why it occurs. One such problem is that of the cause and nature of change between the level of simple village communities and that of more complex societies (Nissen 1999: 38). The high culture is determine for the period with two stages of primitive recording system as earlier precursors of proto-writing in ancient Iran. We use the term high culture to designate the art and culture, marks of ancient developed societies Iran of the 5500–4800 years before. We knew in a short time arose an urban culture, which proved to the high relevance to the study of development change in their own right. This time have some marks developed economic and social structure. In the economic branch need a good elite people to record all economic transactions. The best information's of bookkeeping and recording evidences come from Susa in southwest Iran and Sofalin in central Iranian Plateau, not far from Tehran capital of modern Iran. Proto-writing is categorized here as the high level culture in pre Proto-Elamite and Proto-Elamite Phases. In Iran, much of the recent wave of research interest in this developmental problem has been concerned with a set of manifestations that can be loosely lumped together as the pre and proto-Haltamti or Proto-Elamite phenomenon.

8 Pre Proto-Haltamti or Proto-Elamite Phase

Based on the evidence of the first tablets of the complex society in ca. 5200 years age, an elite group used the earliest tablets for better and more controlling of administrative activities. Pre Proto-Elamite is a term with the early numerical and numero-Idiographic tablets are dated to around 5200 years before. This first phase of high culture or proto-writing period is parallel to Susa II time in Khuzisatan and early late Plateau in Iranian plateau.

9 Early Numerical Tablets

The first of early numerical tablets is rounded than flat, sealed and unsealed; appear for a short period of time of the Susa II in Khuzistan or late Uruk V and IV period in Mesopotamia. These tablets bear marks made with a new administrative tool. It seems that the molded clay balls from the previous stage had become flattened. This was perhaps due to the fact that the numerical impressions on the surface were found to be sufficient enough to impart the information previously contained within the bullea (Englund 1998: 50). A more formalized version of the rounded tablets becomes common from about 5250–5200 B. During this 50 year period, the numerical notations become standardized. These tablets are generally earliest record document of proto-writing tool. From Iran, these types have been found from Susa Acropole 1, Levels 19–17, Choga Mich, Godin V and Sofalin (Fig. 10; Dahl et al. 2012; Hessari 2011).

10 Numero-ideographic Tablets

The next tablet type of the pre Proto-Elamite phase is Numero-Idiographic tablet. The first inscribed tablets with Numero-Idiographic tablets are dated to around 5200 before. The surface is marked with numerical notations, seal impressions and one or two inscribed images. Scholars refer to these inscribed images as signs,

Fig. 10 Early numerical tablet, Tepe Sofalin
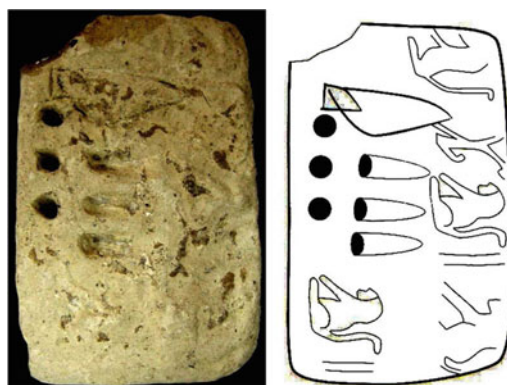
Fig. 11 Ideo-numerical tablet, from Godin

primarily because they are inscribed. Rather than being impressed by the flat end of the stylus, these signs are drawn into clay with a pointed end of the stylus. Akin to line drawings made in the clay, signs were shaped as some type of commodity such as a jug of milk or a sheep – meaning that they only represent discrete objects, not ideas or concepts. Numero-Idiographic tablets were discovered from Susa, Choga Mich and Godin (Fig. 11). The tablets shows, the existence of a first step of developed administration system and advanced bookkeeping

techniques. These tablets are parallel to first phase of proto-cuneiform tablet in Mesopotamia, Uruk V and IV (Dahl et al. 2012; Englund 1998, 2004; Dahl 2005).

11 Proto Haltamti or Proto-Elamite Phase

"Proto-Haltamti or Proto-Elamite" is the term for a writing system in use in the Susiana plain (Englund 2004; Alizadeh 1996; Scheil 1905), South Iran (Stolper 1985), southeast Iran (Damerow and Englund 1989) and the central Iranian Plateau (Sarlak 2010; Majidzadeh 2009; Hessari 2011) between ca. 3100 and 2800 years ago, a period generally considered to correspond to the Jamdat Nasr/Uruk III through Early Dynastic I periods in Mesopotamia. Proto-Elamite phase witnesses a set of proliferating applications equally as confusing as those documented for the term Jamdet Nasr. Archaeologists have variously used the term Proto Elamite to mean a people, a scripts, a material culture and a time period; in addition, the term seems to carry inherent geographic implications.[2] The label was first applied to a pictographic script at the site of Susa in the province of Khuzestan, southwestern Iran (Englund 2004). Susa was known to be the historical capital of the Kingdom Haltamti or Elam, where numerous records written in Elamite had been recovered from the upper levels of that site. It is therefore inferred that the crude pictographic tablets coming from the lower levels at Susa represented early attempts at writing made by the ancestors of the later Elamites; accordingly, the script was designated as Proto-Elamite. However, it has been proven that the authors of the tablets were not the forerunners of the people who are known as Elamites and indeed, the Proto Elamite script has now been recovered over an area considerably more extensive than the known bounds of ancient Elam. Labeling individual sites as Proto Elamite should thus as present only be done on the basis of the

presence of tablets written in the Proto Elamite script or numerical notation. We tentatively date the Proto-Elamite period to sometime around 51,000 B, or contemporary with Uruk III or the Jemdet-Nasr period in Mesopotamia. The tablets have two different surface and reverse sides. The entries surface of tablet usually began in the upper left corner, generally with a heading, followed by one or more individual entries. The structure of Proto-Elamite tablets divided into three sections. Many texts begin with a heading, a sign or a sign combination. The proto-Elamite notation system are in sexagesimal (System used to count discrete inanimate objects, and possibly high-status humans; Fig. 12), Decimal System (System used to count discrete animate objects, in particular domesticated animals and human laborers; Fig. 13), Capacity System (System used to note capacity measures of grain, in particular barley; the small units also designate bisexagesimally counted cereal products), Area System (System used to note area measures) and their sub-system (Englund 2004: 104–118). Englund means the tablets from first phase of the proto-writing is a cultural influence of Mesopotamia and second phase of them loans many signs of the proto-Cuneiform from South Mesopotamia (Englund 2004: 122–24).

Fig. 12 Proto-Elamite tablet, sexagesimal system, Tepe Sofalin

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[2]More about late plateau and Susa II = late Uruk and Susa III = Jamdat-Nasr see: Malek Shahmirzadi (2006: 98) and Dittmann (1986: 76–147).

Fig. 13 Proto-Elamite tablet, decimal system, Tepe Sofalin

12 Conclusions

A historical interpretation of the Proto-writings tablets described above can be based on several statements: The developed of ancient Iranian proto-writing began from prehistoric period and was not a revolution in the proto-historic era. The earliest tools of record of administrative activities was token, trails and clay balls. In the proto-historic period there emergences of the earliest scribal documents in the form of numerical and ideo-numerical tablets that appeared in pre proto-Elamite Phase. The second phase of higher cultural period, Proto-Elamite era, represents a new scribal. Some Scholar are in the opinion that the first phase of the higher cultural period, (i.e. Pre Proto-Elamite), is a cultural influence exerted by Mesopotamia and the second phase, Proto-Elamite texts, loans some signs from proto-cuneiform by southern Mesopotamia; But on the basis of writings evidence, it seems that in higher cultural period, an elite group in the ancient Iranian urban centers controlled political and economic institutions in form of a developed pre-state societies and manipulated these institutions for their own benefit. The level of sociopolitical organization and economic specialization at proto-writing centers indicates that strong

mechanisms of cultural interaction and trade-based finance emerging between southwestern Iran (Susiana) plain led to emergence of a developed complex society in the southeastern Iran and central Iranian plateau.

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The Kingdom of Urartu in North-Western Iran (Ninth–Seventh Century B.C.E)

Ernst Stephan Kroll

Abstract

Between the ninth and the seventh century B.C.E large regions of north-western Iran were part of the kingdom of Urartu. From their capital Tushpa on lake Van the kings of Urartu ruled over a large territory that reached from the Euphrates to Aras river, to Mahabad, Tabriz, Ahar and Ardebil in Iran The rich agricultural areas north and west of lake Urmia were the favourite territories of Urartu. There they constructed more than one hundred large and small fortresses to protect their areas and population against enemy attack. For centuries Urartu was engaged in bitter conflicts with Assyria and the rulers of Mannaea, a kingdom south of lake Urmia. In the middle of the seventh century B.C.E the major Urartian sites in Iran, Armenia and Anatolia suffered a wave of fatal destruction. Urartu fell into oblivion.

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1 Introduction

Several hundred cuneiform Urartian inscriptions were found in Eastern Anatolia, Armenia and north-western Iran within the last 200 years. Hundreds of Urartian Sites were discovered there too. Important fortified sites like Vankalesi, Toprakkale, Ayanis, Çavuştepe and others were excavated in Anatolia, Arinberd or Karmir Blur in Armenia, Hasanlu III, Haftavan III or Bastam in Iran. Surveys identified ancient burial grounds, sacred places, barrages and many more. North-western Iran, the Urmia region, was an important part of the Urartian kingdom from the first years of the kingdom onwards. But for different reasons much less is known than in Eastern Anatolia or Armenia. Until today only 15 stone or rock cut inscriptions are known (Fig. 1). This is the result of poor surface archaeology over the last decades. In the sixties and seventies of the last century several expeditions were the driving force in exploring north-western Iran, specially remains of the kingdom of Urartu. But this tradition was not continued due to different reasons after 1978. Unlike in Turkey or Armenia there are few archaeologists who are especially interested in the archaeology and history of Urartu. Though it has been possible for several years to conduct archaeological fieldwork in north-western Iran again, Urartu is not the focus of a new generation of archaeologists. The Neolithic or Chalcolithic, the Kura-Arax period or the

kingdom of Mannaea is much more in the focus of today Iranian archaeology.

So we still rely today on data that were mainly assembled by Iranian, British, German and Italian expeditions until 1978 (Kroll et al. 2012: 5). Only a few finds were found by coincidence later within the last 40 years. The knowledge on Urartu in Iran is limited by another reason too. Most publications were done in German, mainly by Wolfram Kleiss (see: Kroll et al. 2012: 474–475), a language hardly anybody in Iran, Turkey or in the Anglo-American world can read or write. Iranian reports were rarely published and mostly kept in the archives of the Department of Antiquities. One fact is almost unknown: the first Urartian finds ever found (bronze objects probably taken from a looted tomb) were found in Iran in 1859, at Verahram on the Aras river (Fig. 1). They were taken to the Ermitage in St. Petersburg where they are kept still today (Piotrovskij 1966: 312).

During the Late Bronze and Early Iron Age (ca. 1500–800 B.C.E) numerous small polities are to be found in north-western Iran (Biscione 2003, 2009; Danti 2013). In the Late Bronze Age (about 1500–1150 B.C.E) there are fewer settlements and more cemeteries. Settlements and hill forts increase in the Early Iron Age

Fig. 1 Major Urartian sites in North-Western Iran: military campaigns are found in the east, peaceful activities concentrate in the west

(1150–800 B.C.E). Often mortuary complexes were excavated whose accompanying settlements have not yet been found: e.g. at Yanik Tepe, Tabriz (Blue Mosque) or Dinkha Tepe. In the Early Iron Age it is obvious that there exist not only small settlements and forts, but also larger central places. Some have been excavated like Geoy B, Haftavan IV, Kordlar II-I and Hasanlu IV. More fortified sites, are known only through surveys like Aslan Qaleh (west of Miyandoab) or Boyuk Qaleh. In Eastern Azarbaidjan the fortresses of Nashteban, Qiz Qaleh Ruyan Duyah, Ak Kale, and Seqindel must be mentioned (Biscione 2009: Figs. 1 and 2; Kroll 2011: Fig. 1). These fortresses give the impression that the entire region was ruled by many small rulers. This situation is reflected in the Assyrian sources of the same period, which speak of numerous small territorial units in the mountains to the North and East. There is hardly any iron metallurgy before the eleventh century B.C.E, but to a large extent thereafter. Though in north-western Iran various places of ancient mining are known, they have rarely been investigated scientifically.

Historical information on north-western Iran exists already in the Early Iron Age. Ashurnasirpal I (eleventh. century B.C.E) mentions a campaign into the direction of Gilzani (near lake Urmia), where he receives horses as a tribute (Fuchs 2004: 131). Gilzani (or Gilzanu/Gilzana) has been located by Julian Reade in the Solduz plain with good arguments (Reade 1979). Later in the reign of Tukulti Ninurta II (890–884 B.C.E) Gilzani is again mentioned in connection with Hubushkia (Fuchs 2004: 334). Ashurnasirpal II receives tribute during several campaigns into the North-Eastern mountains early in the ninth century B.C.E. Urartu must have existed in its beginnings as a major polity during this period; but it is not mentioned as none of the Assyrian campaigns went so far to the North (Reade 2002: 207, ND 5571).

When Shalmaneser III, Ashurnasirpal's successor, becomes king in Assyria we get more information on Urartu and other ancient kingdoms in the area like Mannaea. His first and third campaigns (859 and 856 B.C.E) are directed against Urartu: against Urartian territories in Eastern Anatolia and Iran. In his first campaign he marches against the Sea of Nairi and destroys Sugunia, a stronghold that had been set up by Arame of Urartu (Fig. 2, left). The Sea of Nairi is nowadays identified with lake Urmia, not with lake Van (Salvini 1995: 28; Fuchs 2004: 32). In inscriptions Shalmaneser reports, that he destroyed Sugunia, that he set up a royal stela on the shore of lake Nairi. Before, on the way to Sugunia, he had already destroyed other cities. On his way back he claims receiving tribute (camels and horses) from a number of places: among them Gilzana. The setting up of a stela on the shore of the lake is depicted on a bronze strip of the Balawat gates (Fig. 3, upper part), apparently on a high mountain. From lower mountains Assyrian soldiers are seen feeding (?) a water dog or cat? In this respect it is of interest that Istakhri, a medieval historian, mentions a water dog in connection with lake Urmia. As the lake is extremely salty, any fish or animals could have survived only in the deltas of rivers merging with lake Urmia (Kroll 2012a).

But Shalmaneser's first campaign was apparently of no permanent success. In 956 B.C.E he again led his army against Urartu, first crossing Eastern Anatolia from West to East, touching major Urartian territory. He destroyed Arzashkun, the royal city of Arame the Urartian, which should be searched somewhere north of lake Van. Moving farther East he marched through several Urartian polities in Iran. First he mentions Aramale, where he destroyed settlements. Then he went on to Zanziuna, where he received horses, cattle and sheep as tribute (Fig. 2).

After again climbing down to the Sea of Nairi he marched on to Gilzani. Asau, the king of Gilzani, prepared tribute for the Assyrian king: horses, cattle, sheep, wine and seven camels. After receiving tribute there, Shalmaneser marched back to Assyria, to Arbail. Some of the tribute and booty is again depicted on the Balawat gates. We see the Assyrian army driving away an Urartian storage vessel, as they were found in quantities at Ayanis, Çavuştepe, Karmir Blur or Bastam. On the other hand the picture of a typical
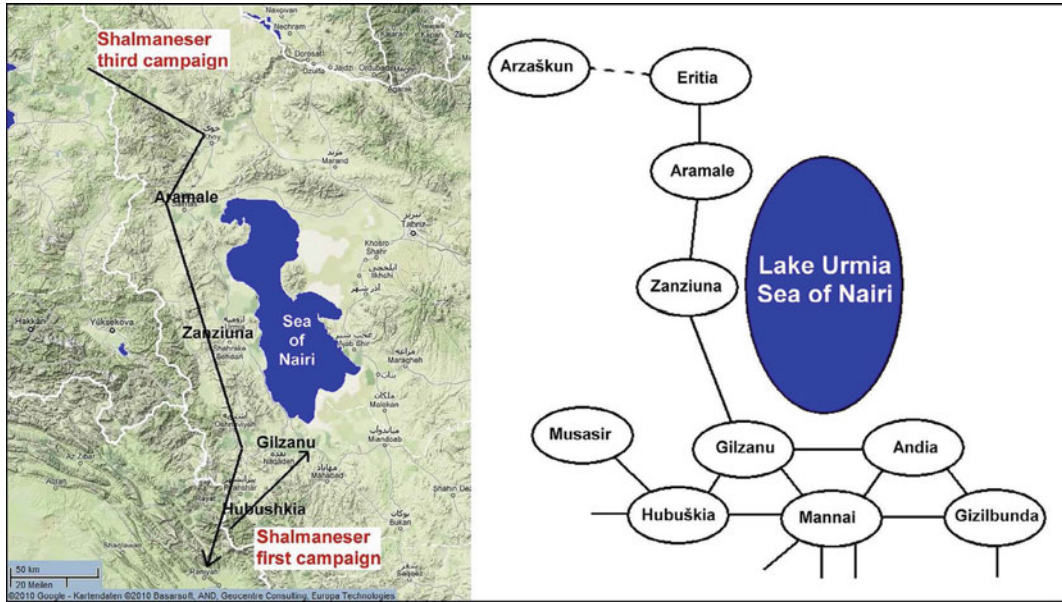
Fig. 2 Left: Shalmaneser's campaigns in North-Western Iran in 959 and 956 B.C.E. Right: polities in NW-Iran at the time of Shalmaneser III (after Fuchs 2004)

Urartian storage vessel (Fig. 3, lower part) by Shalmaneser shows, that storage and central planning started in Urartu as early as in the middle of the ninth century. But already in the late years of Shalmaneser III the Assyrians were not able any more to penetrate so far. Urartu under Sardure and Ishpuini had grown stronger. Now for the first time a kingdom of Mannaea is mentioned: the Mannaean king Udaki left his royal city Zirtu when the Assyrian army campaigned against him (Postgate 1989; Hassanzadeh 2017).

Concerning the history of settlement the repeated burning of Kordlar Tepe II and I and the destruction of Hasanlu IVB marks a decisive turning point for north-western Iran. We may assume that by the end of the Early Iron Age, i.e. during the ninth century, such disasters happened more often (Kroll 2011: 156). If we follow the historic sources, particularly from Assyria, we must assume that a great deal of this destruction is due to the Assyrian raids to North-Western Iran. Obtaining raw materials in the widest sense
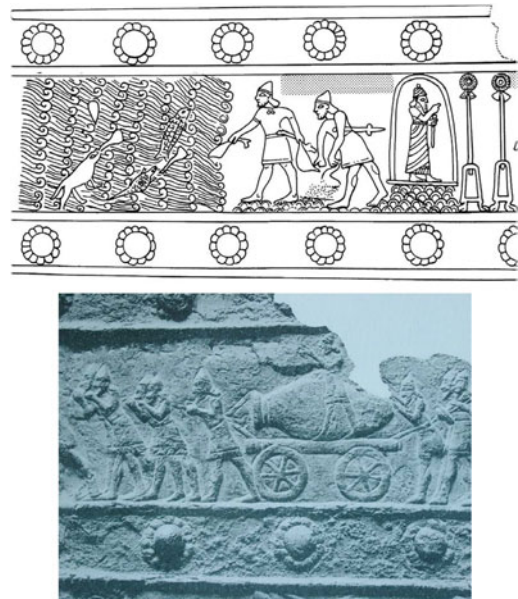
Fig. 3 Upper part: Assyrian king Shalmaneser III sets up a stela on a mountain near the Sea of Nairi (drawing by C. Wolff), lower part: Shalmaneser's army drives away an Urartian storage vessel

was the goal of this expansion, including human labor, metal, cattle and horses (Fuchs 2017: 173). In the same way the rising and expanding kingdom of Urartu, centered on Lake Van and Lake Urmia, may have been responsible for these destructions since the middle of the ninth century. Several inscriptions of military campaigns around lake Urmia prove that the early kingdom of Urartu was rather active in conquering other territories, specially territories of the Mannaeans. For the time being, research has not been able to find out, if Urartu did rise due to independent development or if it must be considered a reaction to Assyrian aggression.

In this period, in the second half of the ninth century B.C.E, the first Urartian fortresses and inscriptions in the north-western Iran were set up (Kleiss 2015: 60–79). Small fortresses had existed allover north-western Iran in the Early Iron Age already. The big Urartian fortresses of Livar near Marand, Esmail Agha near Orumiyeh and Qalatgah near Ushnu were constructed at that time to protect Urartian mother country. Likewise in the North Danalu, Oghlu Qaleh or Siah Qaleh were set up. These forts show a new way of construction that can be identified as typically Urartian. All buildings show carefully laid foundations of stone walls, on which mudbrick walls were set. Fortification walls show rectangular projections and towers (Kleiss 1976: 35–36). Each region is controlled by one or two central fortresses. They are surrounded by a network of medium or small fortified sites. All sites are in eye contact to each other (Early-Spadoni 2016). Another symptom of Urartian sites is a certain often small amount of 'Urartian Palace Pottery', especially trefoil pitchers with their typical handles (Fig. 8, right). There is no predecessor for this shape in the Early Iron Age. If these pitchers show incised measurements on their handles, it indicates central distribution of food (Kroll 1979: 221–224). Another important criterion is a central storage system: hundreds or even thousands of gigantic storage vessels, 'pithoi', whose volumes are given, can be found in these fortresses (Reindell and Salvini 2001).

Among the first Urartian cuneiform inscriptions the stela on the Kelishin pass, high in the Zagros mountains, is most important. In Assyrian and Urartian language king Ishpuini and his son Menua celebrate the renovation of the cult of the god Haldi in the temple of the city of Musasir (Salvini 1995: 39–40; CTU A 3-11). When Ishpuini and Menua set up the bilingual stele at Kelishin they must have taken the road from Van to Qotur, Salmas, Orumiyeh and Ushnu to reach the Kelishin (see: Fig. 1). Connected with these activities in Musasir may have been a major successful military campaign against the kingdom of Mannaea south of lake Urmia (Postgate 1989) which is described in the Karagündüz (CTU A 3-9) and Tashtepe inscriptions.

The place of stone inscriptions found so far shows the western and northern shore of lake Urmia was original Urartian territory, not conquered area. All inscriptions at Siah Chesme, Ezhdaha Bulaqi, Qalatgah (CTU A 3-10) or Kelishin mention peaceful building activities. On the contrary inscriptions found farther to the East, as in Tashtepe (CTU A 5-10), Taraqeh or Ojasar-Ilandagh (CTU A 3-8), primarily mention military activities by Ishpuini and Menua in hostile territories (Fig. 1). This indicates the western areas in north-western-Iran were always Urartian controlled territory. There was no need to conquer them or set up victory inscriptions. But farther to the South-East or East battles with the rulers of Mannaea and other local rulers were fought. These wars with Mannaea were fought by almost all Urartian kings later in the eighth and seventh century.

Early in the eighth century B.C.E the Urartian kings Argishti I and Sarduri II continued expansion to the East and North-East. Argishti campaigned east of lake Urmia as the inscription at Javanqaleh shows (CTU A 8-13). He conquered large parts of nowadays Armenia, built new cities like Erebuni (CTU A 8-17–A 8-20) and Argishtihinili (CTU A 8-16). He may also have built the large fortress at Verahram (CTU B 8-22) on the Aras river close to Mt. Ararat. This fort may have protected a direct road from the Urartian capital Tushpa to Urartian territories around lake Sevan that could be used in summer time (Hammer 2014). But the eastern side of the Aras river, with Oğlanqala the major site,

apparently always stayed independent (Ristvet et al. 2013).

Sarduri, son of Argishti again campaigned in the East, especially along lake Sevan (CTU A 9-7). In Iranian East-Azarbaidjan he conquered the city of Libluini in the country of Puluadi, set up a victory inscription and built a new fortress nearby (CTU A 9-8). The old city and the newly built fortress were discovered in 1971, but unfortunately never excavated (Kleiss and Kroll 1980). From the point of Archaeology we know very little about Urartu in Iran in the eighth century. Big centers like Qalatgah, Esmail Aga, Verahram or Livar probably prospered in this time along with many other sites, which were only mapped but never excavated (Kleiss and Hauptmann 1976).

For more than a hundred years, from the middle of the ninth till the end of the eighth century the Urartian areas in Iran were attacked by Assyria rarely. It was only during the reign of Sargon II of Assyria, that Urartu and Assyria clashed in Iran again. The reason was, Rusa king of Urartu interfered more and more in the affairs of Mannaea, which Assyria considered a tributary. This Rusa, called by Sargon a usurper, was identified by Thureau-Dangin and recently again by Roaf (2012) as Rusa son Erimena (Fig. 4).

It was Sargon's eighth campaign in the year 714 B.C.E, that brought havoc to Urartu in North-Western Iran. The route of Sargon's campaign was long disputed. It was Zimansky (1990) who first meticulously argued for a route around lake Urmia, which Reade (1978) had proposed years before. This route meanwhile has been accepted by many scholars (Liebig 1991, 1996; Fuchs 2004: 524, 529; Kroll 2012b). Modern research favours a route starting east of Mt. Sahand, going on to Tabriz, Marand, Khoy, Salmas, Orumiyeh and farther to Ushnu. Zimansky identified the huge Urartian fortress of Livar north of Marand with Ushqaja, which is destroyed and burned down by Sargon. Qalatgah in the Ushnu valley he identified with Uajais. According to Sargon, Uajais is located at the lower end of Urartu, not far away from Hubushkia. Within the network of Urartian fortresses which stretches from Armenia to the south-western shore of Lake Urmia, Qalatgah indeed is located at the southern and lower end of this network of fortresses. Moreover, it is the major fortress in the entire region, it might well be the big centre as described by the Assyrians (Lanfranchi 1995). Archaeology alone gives few clues for reconstructing the famous campaign by Sargon of Assyria against the Urartian king Rusa Erimena. The only site we may connect with this campaign is the Urartian occupation of Hafta-van III (Burney 1972: 142), which was burnt down at some time in the eighth century.

The devastation of rich agricultural areas around lake Urmia and the sack of Musasir was certainly a heavy setback for Urartu in north-western Iran. But shortly afterwards Urartian control was firmly re-established in the area. This is shown by inscriptions of the new king Rusa (son of Sardure II) at Movana (CTU A 10-3), Mahmudabad and Mergeh Karvan (CTU A 10-4). Together with the stele at Topzawa CTU A 10-5), just across the border in Iraq, these inscriptions report on the restitution of the Haldi cult at Musasir, shortly after this city had been sacked by Sargon II (Roaf 2012: 191–194, 216).

Urartu must have experienced another setback through a Cimmerian invasion a few years later. But this we only know from reports of the Assyrian secret service (Fuchs 2012: 155–157). Again this was of no long impact. The Urartian king Argishti II campaigned successfully in the East as military campaign inscriptions at Shisheh, Razliq and Nashteban in Eastern Azarbaijan show (CTU A 11-4-6).

Urartu's last period in Iran during the seventh century is best known through the excavations at Bastam (1969–1978). After the more recent excavations at Ayanis it is clear the Urartian king Rusa son of Argishti (c. 680–655) was one of the most successful and mightiest kings of his time (Zimansky 1995). Just before the Empire of Urartu—possibly even during his reign—was destroyed through internal disruptions, draught or the onslaught of horse nomads. Rusa set up

Date	Urartian kings	Assyrian kings	Events
		Assurnasirpal II (883–859)	
850 BC	Aramu ← 856 / 831	Shalmeneser III (858–824)	Founding of capital at Van
	Sarduri, son of Lutipri		
	ca 818	Shamshi-Adad V (833–811)	Assyrian decline
	Ishpuini, son of Sarduri		Urartian campaigns
800 BC	Minua, son of Ishpuini		in Iran
			Expansion of Urartu in north
	Argishti, son of Minua		Founding of Erebuni
		Assur-nirari V (754–745)	
750 BC	Sarduri, son of Argishti	Tiglath-Pileser III (744–727)	Assyrian revival and Urartian defeat in Syria
	743		
	Rusa, son of Erimena		Sargon's 8th Campaign (714)
	714		
	Rusa, son of Sarduri	Sargon II (721–705)	
	708		Kimmerian invasion
	Argishti, son of Rusa		
700 BC		Sennacherib (704–681)	Massive Urartian building program
	Rusa, son of Argishti		
	673		
	665	Esarhaddon (680–669)	
650 BC	639	Assurbanipal (668–627)	Last reference to an Urartian king (ca. 639)
	Sarduri, son of? ←		
600 BC			Fall of Nineveh (612) End of Assyrian Empire

Fig. 4 Urartian kinglist and synchronisms with Assyrian kings according to Roaf (2012) (table by Sagona and Zimansky 2008: 322; modified by S. Kroll)

the fortress of Bastam (ancient name Rusai. URU. TUR = Rusa's town) as a new military and agricultural center. Between 1969 and 1978, the Tehran branch of the German Archaeological Institute, directed by W. Kleiss, excavated this enormous Urartian fortress (Kleiss 1979, 1988).

The modern village of Bastam is located some 50 km north of the city of Khoy at an altitude of 1300 m above sea level. To the West the Turkish border is away about 50 km, to the East Naxcevan is even closer. Around 100 km north Mount Ararat (Agri Dag) can be seen on clear days. The ancient citadel set up by Rusa is situated high above the modern village on a steep mountain ridge. The ridge is situated on the left bank of the river Aq Çay, as it enters the wide, fertile plain of Qara Zia Eddin. Several channels were diverted from the river by Rusa's architects, to irrigate the adjacent plain. With its situation on the western edge of the plain the fortress not only controlled the plain but also a major West-East-Route, running from the Urartian capital Tushpa to Urartian territories in Azarbaidjan and Armenia.

The area of Bastam was settled already from the third Mill. B.C.E onwards, as excavations within the area of the modern village showed. The area was part of Urartu since the ninth century B.C.E. A small fortress was built at that time, which was later demolished, when the large citadel was planned. Among the royal residences Rusa II built (Ayanis, Adilcevaz, Karmir Blur) Bastam was by far the strongest. Next to Vankalesi (Tushpa) Bastam is the largest Urartian fortress ever built. During Rusa's reign yet the fortress was conquered, burnt down and not resettled again (Fig. 5).

First information about the ancient fortress derived from a building-inscription, allegedly coming from the village of Bastam, which was published in 1910 (CTU A 12-7). The actual site was discovered only in 1967 by Wolfram Kleiss of the German Archaeological Institute in Tehran. Excavations were conducted by W. Kleiss and S. Kroll with a team of archaeologists and experts from Germany, Iran, Italy, the United States and other countries between 1969 and 1978.

Bastam fortress is divided into a lower, a middle and an upper citadel (Fig. 6). Fortification walls were flanked with rectangular towers and buttresses. All structures were built of sundried mud bricks on high stone foundations. The royal residence was situated in the upper or northern citadel around 150 m above the plain.

Fig. 5 Assumed route of Sargon of Assyria against Urartu around lake Urmia in 714 B.C.E, reconstructed after Zimansky (1990) and Fuchs (2004)

The middle citadel contained enormous magazines with huge storage vessels to store grain, wine and oil. Other buildings contained the burnt bone remains of more than 1500 animal carcasses (Fig. 7, left). They might have been stored as meat supply for wintertime. Together with the burnt bones were found about 1500 clay-bullae with seal impressions of the king himself, of princes and other high-ranking officials (Fig. 7, right). The lower or southern citadel consisted of lodgings for the garrison and a horse-stable for about sixty horses. A mill, a bakery and small magazines were also found. Cuneiform clay-tablets containing royal letters were found together with bronze furniture-fittings and iron weapons like a large lance-head. Among other finds were cylinder seals, fine red potteries, an animal vessel in form of a gazelle's head (Fig. 8, left). A gate flanked by a tower gave access from the plain to the lower citadel. In the plain at the foot of the fortress private houses and some public buildings were found. Workmen and slave
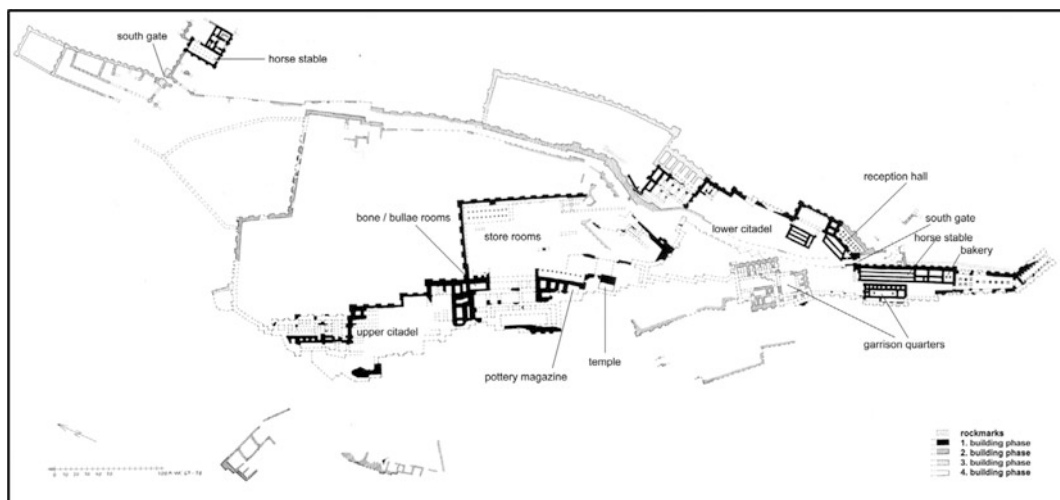
Fig. 6 Urartian fortress Bastam (Rusai. URU. TUR) in NW-Iran, founded by Rusa Argishti early in the seventh century B.C.E

Fig. 7 Left: Bastam upper citadel destruction level: burned animal bones and clay-bullae with seal impressions of king Rusa Argishti, of princes and other high-ranking officials. Right: clay-bullae with seal impressions of Rusa Argishti

labor lived in huts or pit-houses. As the settlement spread, more horse-stables and a corral were built. North of the fortress a second gateway and another stable were built (Fig. 9).

Destruction and end of the fortress at Bastam must have come suddenly sometime in autumn, when all the storerooms were stocked up. As no victims have been found, the fortress probably surrendered after a short siege, the population was led away by the aggressors. All buildings were looted and set afire. Some so-called Scythian arrowheads found in the destruction level

and outside the fortification walls could identify the aggressors. In the same way and at the same time Karmir Blur in Armenia and Ayanis near lake Van was attacked and burnt by riding nomads as numerous so-called Scythian arrowheads show (Rolle 1977).

We don't know much about other sites in north-western Iran in the seventh century, as none has been excavated. In Hasanlu Period IIIc an enormous fortification wall in Urartian building tradition was started but never finished (Fig. 10). The few pottery finds suggest a date in

Fig. 8 Bastam: animal vessel in form of a gazelle's head and fine red polished pottery

Fig. 10 Plan of Hasanlu Period III. Period IIIc: unfinished citadel wall. Period IIIb: squatter like structures set against the citadel wall (compiled by K. Leaman in 2011; courtesy of the Hasanlu project)

Fig. 9 Bastam: paved pillar hall; chemical analyses showed this building was used as a stable

the period of Rusa son of Argishti. After the city wall was never finished, some flimsy structures inside the wall were added. Walls and long pavements could have been simple dwellings with stables for keeping animals. Other structures look more like squatter buildings (Hasanlu Period IIIb). All these structures were left, there is no destruction level visible (Kroll 2013b).

An interesting connection between Urartu and Ziwiyeh must have existed. A bulla with the seal impression of Rusa son of Argishti was found in the destruction level of Ziwiyeh (Seidl 1988:150, footnote 8). The general impression for Armenia and north-western Iran is, that in the middle of the seventh century an enormous catastrophe

occurred. All Urartian strongholds went up in flames or were deserted. Urartu never recovered, no records of later kings have been found (Hellwag 2012). The Assyrian sources are silent too, they only mention some years later another ruler named Sarduri. But for Assyria he is no mighty king any more, he is a vassal paying tribute, kissing the feet of the Assyrian king (Fuchs 2012: 144–145).

The change that occurred is best manifested by evidence from the following period, the Median-Achaemenid period (Kroll 2003). At Bastam a rather limited small horizon of the Median period was discovered (Kroll 2013a). Only some 20 sites of this period are known today in all of north-western Iran. No traces of solid settlement can be found until the Achaemenid period. Some former Urartian sites like Evoghlu (near Khoy) get new fortifications in Achaemenid style (Kroll, in print). But Urartu had disappeared from the memory of the Ancient Near East, only to be discovered again in the nineteenth and twentieth century AD.

Abbreviations

CTU A: Salvini M., 2008, Corpus dei Testi Urartei, Vol. I, Le iscrizioni su pietra e roccia. I testi (Documenta Asiana VIII/I. Roma).

CTU B: Salvini M., 2012, *Corpus dei Testi Urartei, Vol. IV, Iscrizioni Su Bronzi, Argilla Altri Supporti Nuove Iscrizioni Su Pietra Paleografia Generale* (Documenta Asiana VIII/IV, Roma).

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Kazim Khan: A Fortress on the Western Side of the Lake Orumiyeh Basin, Iran

Behrouz Khanmohammadi, Keomars Haji Mohammadi, and Roberto Dan

Abstract

This article discusses an important archaeological site known as Kazim Khan, located on the western side of the Lake Orumiyeh basin, in Iran. This site was occupied for a long period, from the Iron Age up to the Early Pahlavi epoch. It stood on the top of a huge rock spur, today a sort of peninsula, which in the past was presumably an island, when the water level of the lake was somewhat higher than today. In the paper the site's most important structures are discussed. Of particular significance are the remains of cyclopean walls and rock-cut features. It should be noted that the latter include a rock-cut corridor, a complex water system characterized by the presence of a number of cisterns, and remnants of rock-cut rooms. It has been hypothesized that the earliest occupation of the site may date to Urartian times.

1 Introduction

The fortress of Kazim Khan, which is locally known also as "Kazem Dashi", "Sange Kazim Khan", "Kazem Bashi", "Qirkhlr" and "Qal'eh Yekdar", is one of the most important fortresses in the lake Orumiyeh Basin. The site is located in the Khoy area, which is part of the Western Iranian Azerbaijan Province, about 75 km north of the city of Orumiyeh, and about 15 km east of Guşçi. The structures are located on a high rock spur, about 2 km east of the village of Govarchin or Gauharchin,[1] which is currently connected to the mainland due to the lowering of the water level and forms a peninsula; however in ancient times it was probably an island (Figs. 1 and 3). A dirt road 250 m long connects the rock with the mainland; during winter this road is submerged due to the higher water level. About 800 m north of Kazim Khan, another similar peninsula called "Khersak" or "Kharsang" is

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[1]Starting from the name of the village, the site is also known as Gauharchin Kale/Gūrchīn Qal'eh/Govarchin Qal'eh/ Goorchin Ghal'eh/Govarchīn Qaleh/Gyuarchinkala/ Gūvarchīn Qal'eh/Gauharchīn Qal'eh/Guvarchin Qal'eh/ Gauharchin Qal'eh/Guertschin-kalah/Goarchin Kala.

Fig. 1 Satellite image showing the location of Kazim Khan fortress
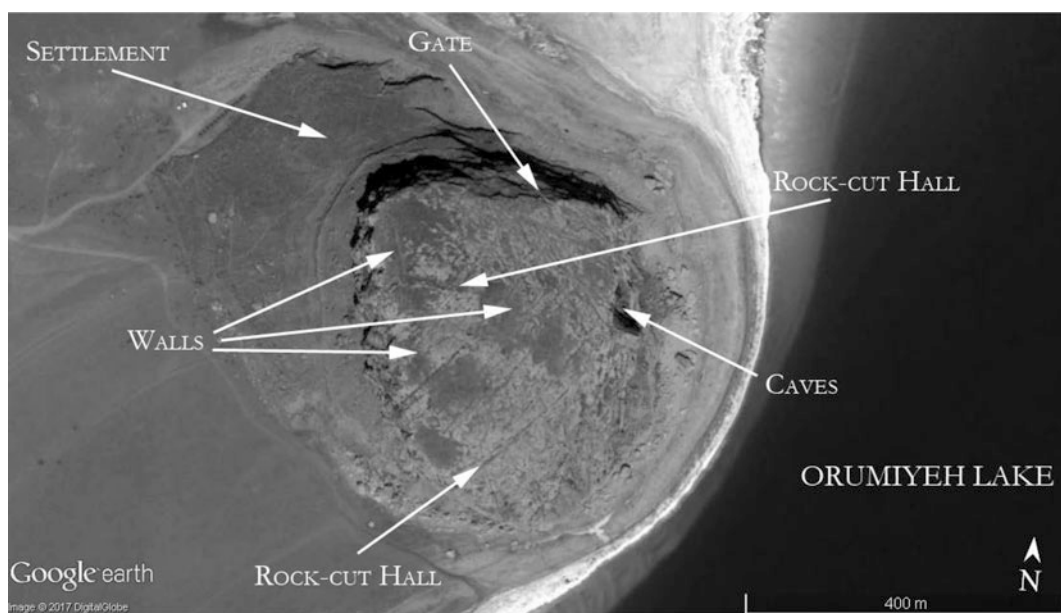
Fig. 2 Satellite image of Kazim Khan site with the positions of the most important structures discussed in the text

present, joined to the mainland by a dirt road about 600 m long. This article is devoted to a general reconsideration of this important archaeological site that has been briefly described by the archaeologists of the Deutsches Archäologisches Institut. The site was presumably built during the Iron Age and settled also in the Early Islamic and Ilkhanid periods. It was also inhabited during the Qajar and Early Pahlavi period, when a person called Kazim Khan settled the site with his family. During this period, he had demolished some old unused buildings to make way for the construction of new structures. The site is of great historical value; the remains may

Fig. 3 View of Kazim Khan rock outcrop from the north

be divided into two groups according to their topographic positions: a lower settlement and an upper fortress. In the lower part are present caves or rock shelters, remnants of a settlement, the main entrance gate and a rock-cut corridor which led to the upper fortress, in which are still visible the remains of fortifications and rock-cut features, such as room foundations, terraces, stairs and water cisterns (Fig. 2). This article gives a preliminary general evaluation of the structures identified on the site.[2]

2 History of Studies

Porter (1822: 593–596), who wrote about Goarchin Kala, was the first to mention the site, giving information that was later reused by Lehmann-Haupt, who however only went to the foot of the rock outcrop. He wrote that the site might be of Urartian date (Lehmann-Haupt 1910: 310–313). Later the site was object of a first investigation by W. Kleiss in 1968, during the systematic archaeological activities conducted in Iranian Azerbaijan by the Deutsches

Archäologisches Institut (DAI) (Kleiss 1968: 38–40). Kleiss recounted that there were middle ages (Armenian/Islamic) pottery and structures at the foot of the rock outcrop, while the upper rock-cut structures and fortification were of Urartian and medieval date, the Urartian date reinforced by the discovery of walls with ashlar masonry (Kleiss 1968: 39). Later S. Kroll suggested the possibility that some of the structures were Urartian, underlining the absence of diagnostic pottery for that period and the presence of Late Middle Ages pottery (Kroll 1976: 86, 1994: UR 126; Kleiss and Hauptmann 1976: 30).

3 The Rock Shelters and the Settlement at the Foot of the Outcrop

At the foot of the fortress, on the eastern side in a position overlooking the lake, there are several natural rock-shelters, of which one is larger than the others. At present it is unknown to what kind of use these shelters may have been put, although traces of human activity are clearly visible, the remnants of some stone walls in particular. The caves are poorly preserved, mainly due to illicit digging and the action of the lake water. Exact dates and functions cannot be established for them.

Traces of a settlement, characterized by a group of buildings, have been identified in the western side of the rock outcrop of Kazim Khan (Fig. 4). Some of these were constructed using

Fig. 4 View of Kazim Khan rock outcrop from the north

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[2]The contents of this article are the work of all the authors. specifically, Behrouz Khan Mohamadi and Keomars Haji Mohamadi wrote "Introduction", "The rock shelters and the settlement at the foot of the outcrop", "The main gate to the upper fortress and the rock-cut corridor" and "The fortress", while Roberto Dan wrote "History of Studies", "The Water Storage System" and "Conclusions".

small stones bound together with lime mortar. Most of these buildings are of square or rectangular shape, with average dimensions of about 4×4 m, 4×5 m and 4×6 m. Many are interconnected by retaining walls, although some were constructed separately. The area is quite badly damaged and the remains of walls are preserved for a maximum height of 1 m. This settlement appears to have been built and inhabited mainly in the Islamic period, presumably in a number of phases, as indicated by the numerous fragments of glazed pottery found scattered on the surface of the area.

4   The Main Gate to the Upper Fortress and the Rock-Cut Corridor

The access to the upper fortress was possible only through a single passageway, which is a steep trail located on the western side of the rock outcrop. The route was partly adapted from a natural passage, while some portions were directly carved from the rock. Paving stones covered some of the floor. The path was enlarged and made more stable through the construction of retaining walls, often poorly preserved. In a section of this passage, a modern wooden bridge—probably similar to the old ones—connected the road with the area of the main gate (Figs. 5 and 6). Just before reaching the bridge the remains of a rock-cut stair are still visible. Seven steps may

Fig. 5 General view of the passage that gave access to the fortress

Fig. 6 View of the modern wooden bridge and the original wall foundation of the access road to the fortress

be seen, each about 0.30 m high and from 1.30 to 1.70 m wide. Unfortunately, these steps are in very bad condition due to natural weathering and human destruction. The retaining walls just before the bridge give an idea of the cultural stratification of the fortress. In fact three different kinds of masonry are present; there are well-shaped cyclopean stones in the oldest, of which is recognizable a well preserved section of nine courses of blocks with a height of almost 4 m. This wall shows features which are similar to those seen in Iron Age masonry in the region, and could presumably be of Urartian date. Most of the other walls are characterized by the use of rough, smaller stones, while the most recent contains baked bricks (9 courses are preserved) bonded by mortar. Access to the fortress was possible through a rock-cut corridor. This entrance (with a removable bridge) constituted a formidable system of control of access to the fortress. This kind of rock-cut corridor is found in Urartian architecture.[3] Some big stone blocks are presumably the remains of a guarding structure, now almost entirely disappeared, that was connected to the main gate. On the same road that led to the upper part of the rock outcrop two rectangular rock-cut niches are visible. The first measures 3 m in height, 2 m wide and 0.30 m deep. The upper part is slightly curved and a smaller and deeper

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[3]For example, in Yukarı Anzaf fortress there is a rock-cut corridor with a length of 9.7 m (Belli 1999: pl. 31).

Fig. 7 A rock-cut niche close to the main gate

Fig. 8 The rock-cut corridor that leads to the fortress

Fig. 9 The rock-cut corridor with, in the foreground, the rock-cut stair

cavity is present. A second niche, very poorly preserved, is located 1 m above the floor level; it has a double frame. The smaller, inner frame has dimensions of 1 × 0.60 m, while the larger, external one measures 1.20 × 1.10 m. This kind of niche, with multiple recesses, resembles those seen in Mesopotamian architecture and could easily date to the Urartian period (Fig. 7). Beyond the wooden bridge and the main gate, there is a rock-cut corridor that is 30 m long, and from 2 to 5.2 m deep. Some stairs are still visible inside the corridor, but are so badly preserved that it was impossible to measure them (Figs. 8 and 9).

5 The Fortress

Some of the site's most interesting structures are located on top of the rock outcrop. Just after the gate, there are remains of cyclopean structures built in a steeply sloping area. The walls of these structures were built of large, rough, unmortised stones. A large rectangular building measures 22 × 12 m; the best preserved walls are about 3 m high, with 6 rows of blocks still preserved (Fig. 10). Another rectangular building with a length of 5.5 m and width of 5.4 m, was attached to the main one. Given the steepness of this area, this was probably a sort of bastion to reinforce the main building. During the Islamic period these structures were reused. Traces of walls made of different masonry, composed of smaller stones are recognizable in the structures. For example, a smaller building measuring 11 × 6 m was built on the older rock-cut structure, characterized by the presence of a central wall that divides the structure in two parts. About 20 m west of the structures already described are the remains of the rock-cut foundations of three rooms (Fig. 11). The first room measures 2.70 × 4 m, the second one 4 × 5.50 m, while the third is larger, with dimensions of 18 × 4 m. One of the rock-cut walls (0.80 m wide) which

Fig. 10 A view of the defensive wall of the fortress on top of the rock outcrop

Fig. 12 View of the southern part of a rock-cut hall with stairways

Fig. 11 Rock-cut foundation of the top of the fortress

divided two of the rooms was still visible, while the second was almost completely destroyed. At a small distance south of these rock-cut rooms, there is a large rectangular cut in the rock. The length is 11.5 m and the width 9.5 m; in the deepest part about 5.2 m of rock has been removed. The western part of this room has been partly destroyed due to human action and by water erosion. In the northern and southern parts, two rock-cut stairs are still recognizable, which were created to reach the upper part of the rocky hill. The height of the steps of the southern stairs ranges from 0.10 to 0.30 m and the width from 0.25 to 1.30 m (Fig. 12). The length of the entire stairway is 1.80 m. The northern stair is very badly preserved and only six steps are still visible. A sort of small gutter, 0.20 m deep, was

carved on the western rock wall to carry off rainwater. During the Islamic period, this large rock-cut area was reused. Traces of structures with 0.80-metre-wide walls are still visible inside, made of small irregularly-shaped stones. Two small chambers are still clearly recognizable; one measures 6.5 × 6.5 m and the other 6.5 × 5 m.

At the highest point of the rock outcrop, which is located on the western side and overlooks the steep, high cliffs, there are the remains of other buildings and structures. Unfortunately, due to cultural stratification and destruction the general layout of the fortress cannot be easily understood. Remains of rock-cut steps and stone masonry are still recognizable on top of the fortress. At the end of the western side and overlooking the cliff, there are visible remains of structures with walls containing quite well-shaped, large stone blocks without mortar (Fig. 13). Close to these, there are other structures that could have been site facilities, with many rooms. A big, 20-metre-long wall is visible. This double-faced wall is preserved for two courses of stones, but the inner part is in poor conditions of preservation, such that the width of the wall is not correctly measurable. Near this structure, there are other remains of the enclosure which seems to have surrounded this part of the fortress. Although the upper part has been removed, the remaining components show that it was made of worked stone without mortar; it

Fig. 13 Detail of the masonry of a wall

Fig. 14 The "Southern Rock Hall"

extends in a northwest-southeast direction, with the highest part reaching a height of 0.70 m. On the southern slopes, in an area where the rock is relatively flat, there is a rectangular room completely carved into the rock that measures 3.5 m wide by 12 m long. Due to its remarkable size, we named this the "Southern Rock Hall". This east-west orientated hall was created on the natural and relatively gently-sloping rock surface present on this side (Fig. 14). The rock-cut parts were the foundations of stone-built walls that had almost completely disappeared, of which only a few stones remain in situ.

6 The Water Storage System

In the site a number of rock-cut cisterns were identified, of different shapes and dimensions and carved directly into the bedrock of this natural outcrop. These would have been used to store rainwater, an important resource, especially given the lack of springs and the salinity of the water of Lake Urmia. Among these water storage facilities, five stand out for their greater size and other features. One is located a short distance from the southern side of the middle part of the fortress, on a relatively flat rock. The mouth is a rectangle measuring 2.80 by meters, with slightly curved corners, and the depth reaches a maximum of 8 m (Fig. 15). The rock formations in which the water tank was cut are more resistant in the upper part, and the lower part becomes progressively wider (Fig. 16). Two small channels, 0.15 m wide and 0.30 m deep, brought water to the cistern. Both exhibit an interesting feature: a cavity, probably for the insertion of a removable object, in wood or metal, so as to regulate the flow of water (Fig. 17). This may well have been the biggest reservoir in the site. A second reservoir is located about 40 m north of the first, irregularly elliptical in shape, with a length of 7 m, width of 3 m and a maximum measurable depth of about 3 m. A significant part of this water storage cavity was filled of debris (Figs. 18 and 19).

Fig. 15 View of a rock-cut cistern (n:1)
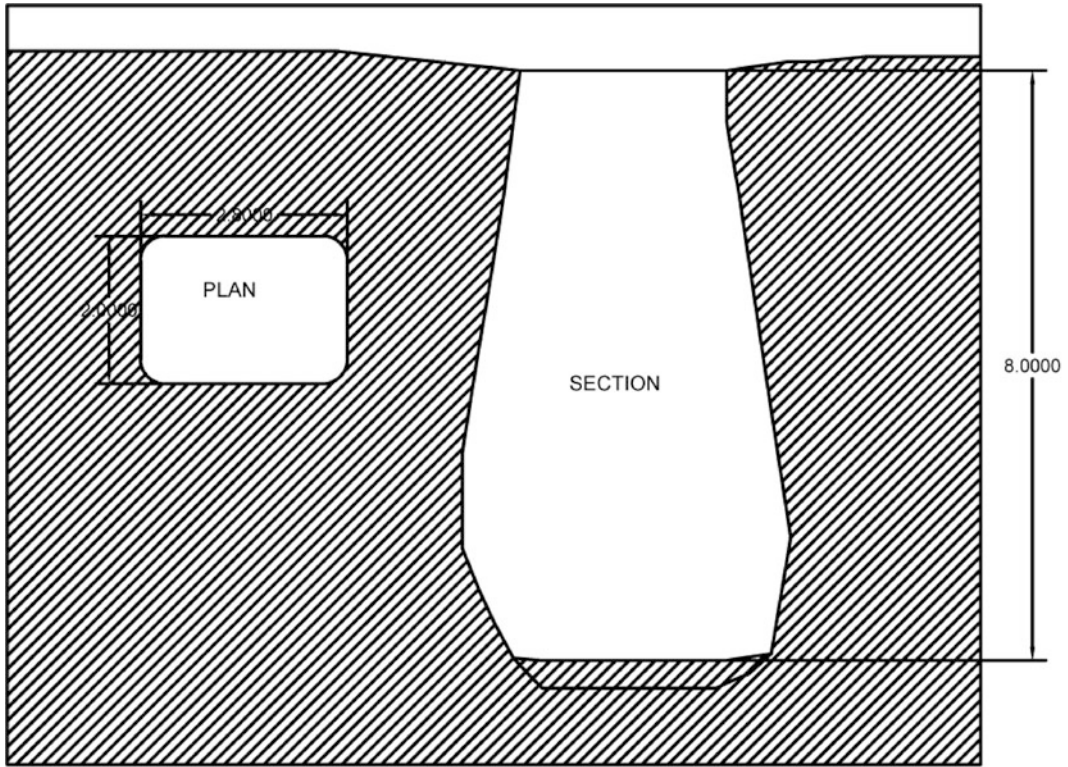
Fig. 16 Plan and section of the cistern (n:1)
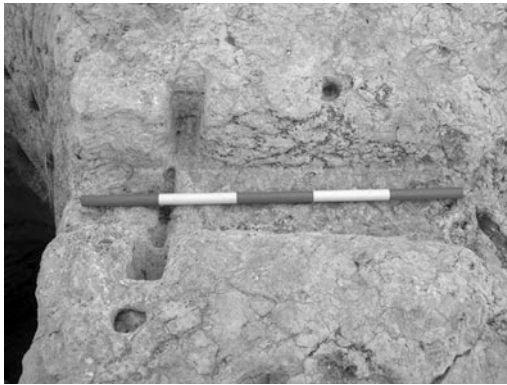
Fig. 17 A detail of the water control system

Fig. 18 View of a rock-cut cistern (n:2)

A third tank is located about 40 m south of the first one, cut into a suitable, relatively smooth rock surface; it is rectangular in shape (approximately 3.70 × 3 m) with slightly curved corners (Figs. 20 and 21). This feature was better made than the other water storage facilities in the castle. The cistern is full of debris, and the measurable depth is about 2 m. Is it observable that the upper part of the cistern was made more carefully than the lower part? It is situated on the southern side of the site, overlooking the cliff, and its shape is almost rectangular, with a length
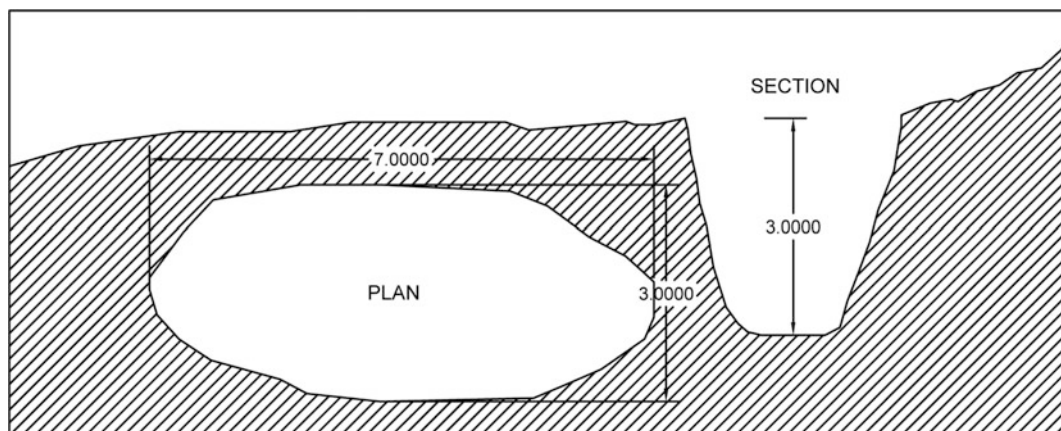
Fig. 19 Plan and section of the cistern (n:2)

Fig. 20 View of a rock-cut cistern (n:3)

of 3.80 m and a width of 1.70. The measurable depth is approximately 2.20 m, but the structure is full of debris (Figs. 22 and 23). An interesting point about this chamber is the presence of indentations in the upper walls that are spaced at similar distances from each other and on the same horizontal level. It seems likely that these notches were made in order to support wooden
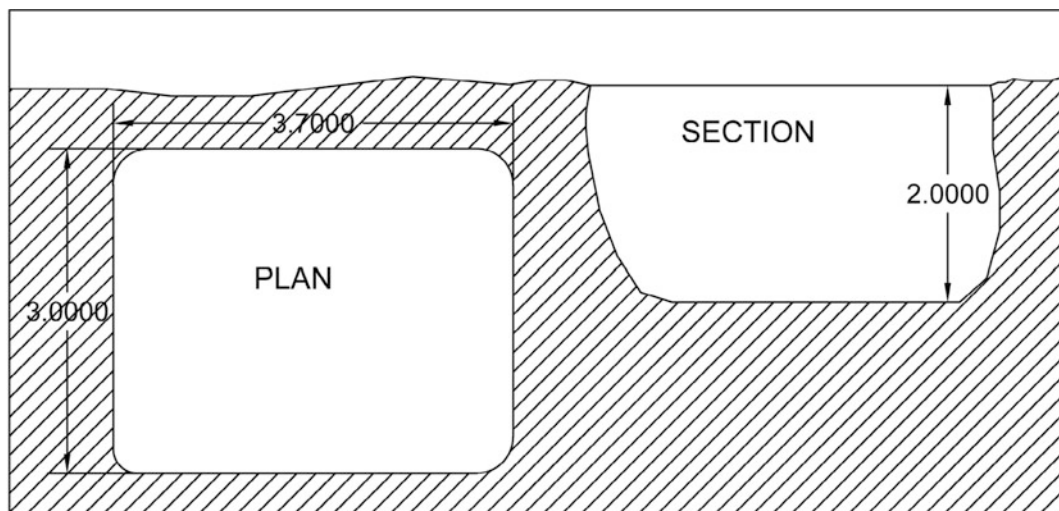
Fig. 21 Plan and section of the cistern (n:3)

Fig. 22 View of a rock-cut cistern (n:4)

logs in order to cover the mouth of the cistern, thus avoiding the arrival of direct sunlight and preventing the collection of dust and debris in and around it. Another cistern is situated at a short distance from the "Southern Rock-cut Hall", in the southern part of the site. The

Fig. 23 Plan and section of the cistern (n:4)

Fig. 24 View of a rock-cut cistern (n:5)
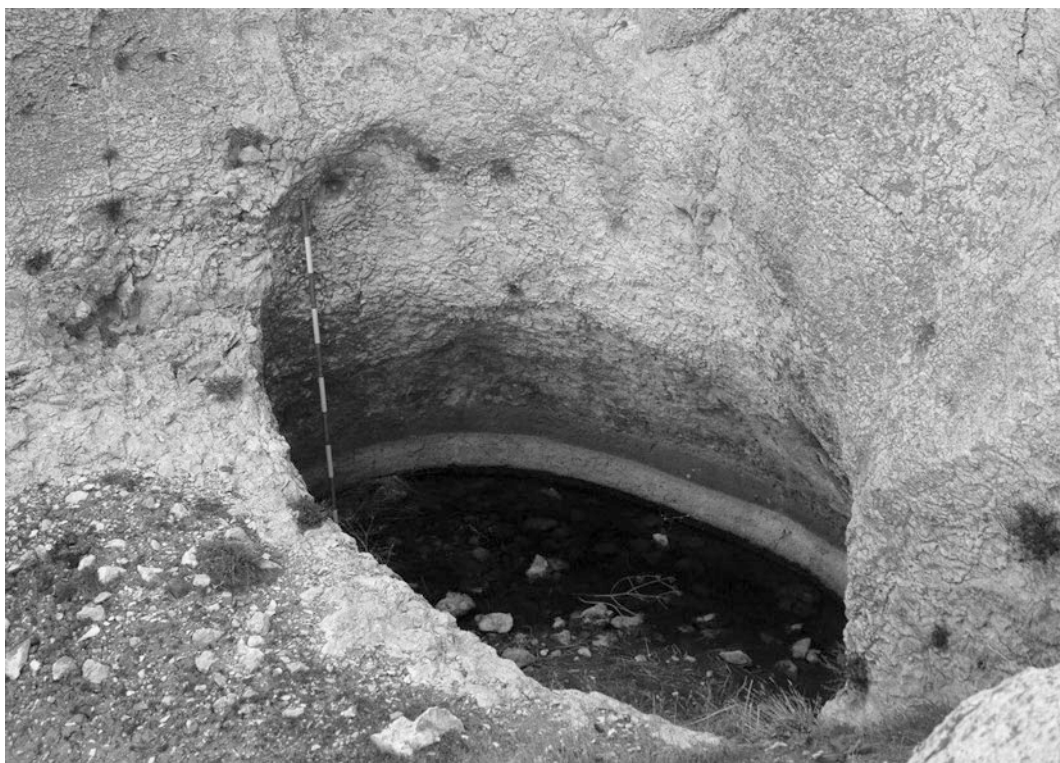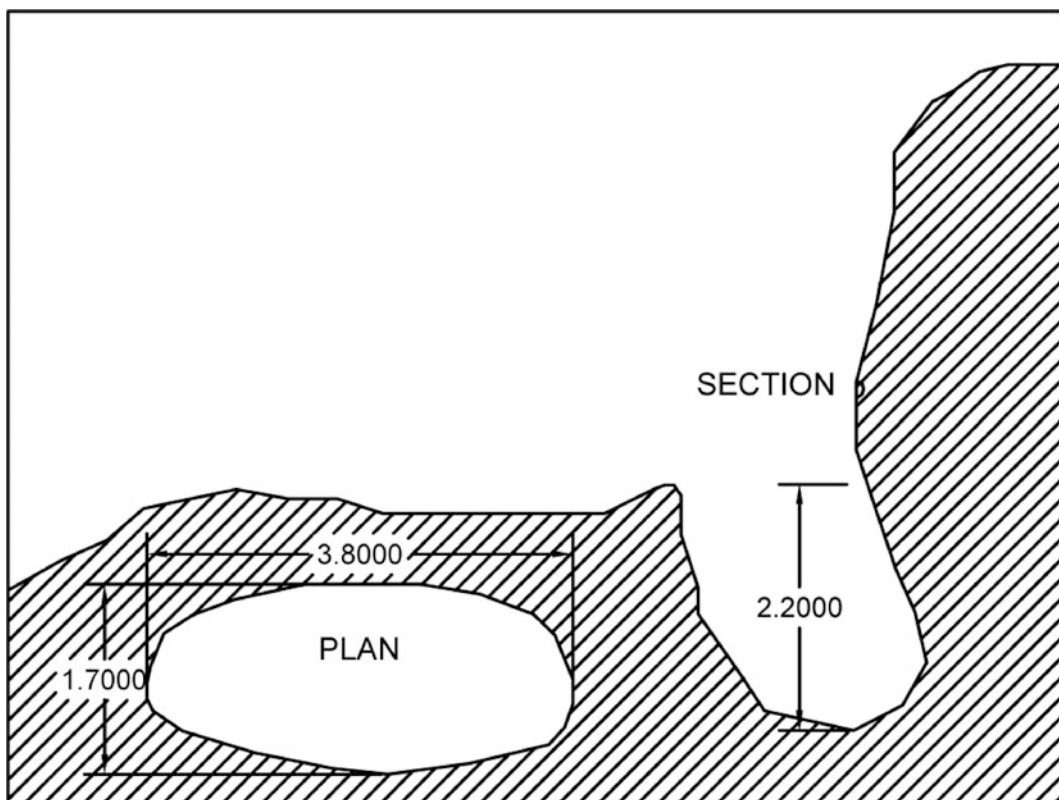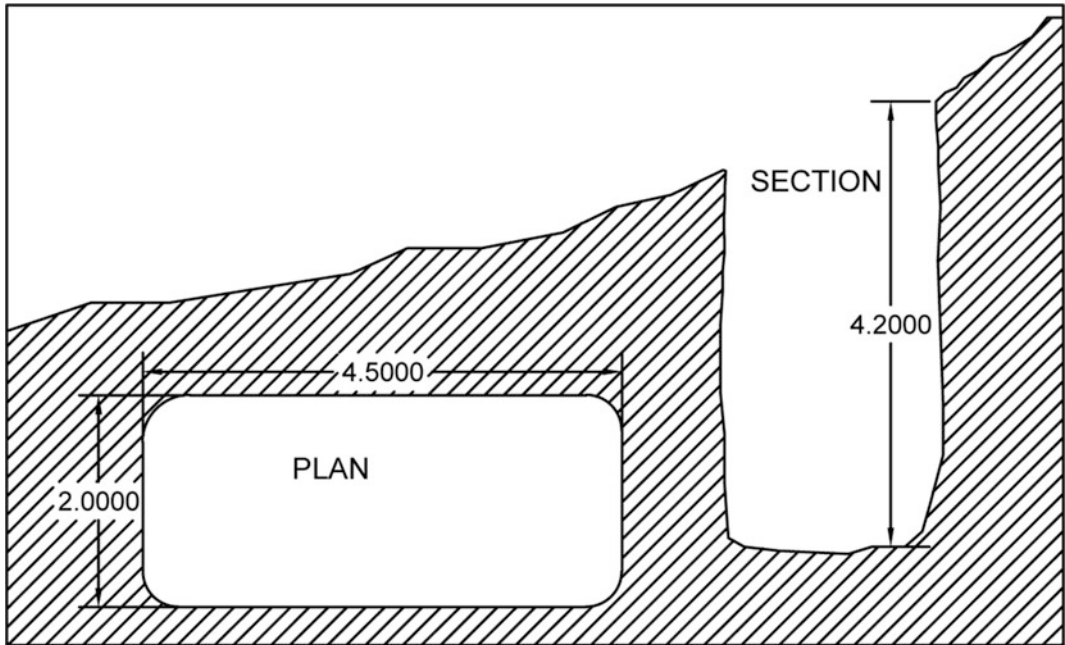
Fig. 25 Plan and section of the cistern (n:5)

location of this feature, which is relatively distant from other parts of the fortress, would have served to provide water for the inhabitants of this area. The shape is approximately rectangular with a length of 4.5 m and width of 2 m (Figs. 24 and 25). This cistern is also full of debris and the visible depth is about 4 m.

7 Conclusions

The entire complex of the Kazim Khan fortress is undoubtedly one of the most important archaeological sites in the Lake Urmia Basin. It is rich in rock-cut architecture, a feature that could perhaps be attributed to the Iron Age period, mainly because rock-cut architecture is very common in Urartian[4] and Mannean archaeological sites.[5] However, it should be underlined that in Iran the date of rock-cut structures is quite uncertain. Until the early 1970s it was believed

that rock-cut features in Iranian Azerbaijan belonged mainly to Urartian period sites. With the discovery in 1974 of the site of Shahtepe which is of uncertain date, but contains plentiful rock-cut features—the matter was became a subject of discussion (Kleiss 1974: 103–106). During our visit to the site, we had the opportunity to confirm the absence of surface diagnostic pottery prior to the medieval period, as had already been stated by Kroll (1994: UR 126). However, it seems reasonable to provisionally date the earliest rock-cut structures to the Urartian period, although archaeological excavations must be conducted on the site to resolve this problem. In the context of current knowledge of Urartian archaeology in Western Iranian Azerbaijan, it should be underlined that the site is located mid-way between the Salmas/Khoy and Urmia areas, where a number of Urartian sites are known. Kazim Khan is quite distant from other known middle Iron Age sites, and from connecting roads between these areas. The site was probably therefore chosen for the control and exploitation of the fertile coastal lands located west of it. Due to its favorable position, the upper

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[4]For example, see Işık 1995.

[5]For an example Qal'eh Bardine, is considered a Mannean site, there are rock-cut structures (cisterns, stairs) very similar to those at Kazim Khan (Hassanzadeh 2009).

part of the fortress is virtually impregnable. It also had an important role in later periods, as indicated by architecture and pottery: the site appears to have remained in use from the Early Islamic period, through the Ilkhanid, Qajar and early Pahlavi periods.

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Assyrian Exploitation of Iranian Territories

John MacGinnis

Abstract

While Assyrian contact with Iran extended back to the trade networks established in the early second millennium B.C., the military exploitation of the lands of the western Zagros is a phenomenon of the Middle Assyrian and Neo-Assyrian periods. Irregular raids beginning in the thirteenth centuries B.C. laid the foundations for the more systemised exploitations of the Neo-Assyrian kings, including the formation of provinces by Tiglath-Pileser III and Sargon II. This lasted till the latter part of the seventh century B.C., a span of over 600 years. The savagery with which the Assyrians imposed their rule on the vanquished territories cannot be underestimated, and it was accompanied by ruthless stripping of the land. This included the abduction of flocks and herds, the deportation of populations, and the seizure of metal resources. Even the gods of the defeated might be seized and carried off to Assyria. Astonishingly, all this did not prevent Assyria from also conducting commercial operations in the subjugated areas.

Keywords

Assyrian · Neo-Assyrian · Zagros

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1 Introduction

The ties between Iran and northern Mesopotamia stretch back into the mists of prehistory. Contacts were certainly in place in the fourth millennium B.C. These ties led to a commercial network which would flourish in the third millennium and, in due course, lay the foundations for the exchanges of the Old Assyrian trade network. However, while business with Iran certainly formed part of this trade, we are not well informed on the specifics. The history of intensive Assyrian involvement in Iran is something which can only be traced in any detail for the periods that followed, above all from the royal inscriptions of the Assyrian kings. These recount the Assyrian penetration into the Zagros over a period of several hundred years.[1]

The first forays occurred in the Middle Assyrian period. Adad-nerari I (early thirteenth century B.C.) styled himself "defeater of the heroic, the army of

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[1] For overviews of the Assyrians in Iran see Levine (1973, 1974), Diakonoff (1985: 57–125), Reade (1995), and Radner (2003, 2013); for summaries of the archaeological evidence, see: Curtis (2001) and MacGinnis et al. (2016: 10–11), and cf Danti and Cifarelli (2016); for a study of the inscriptions on the Najafehabad stele and on the relief at Tang-i Var, see: Frame (1999, 2013); for the newly discovered relief at Mishkas, see: Alibaigi et al. (2012); for the bronze coffin discovered near Sareb-e Qareh Daneh, see: Alibaigi and Khosravi (2016). The historical geography of the Zagros in Assyrian times is still imperfectly known and, although slow progress is being made, the above mentioned studies should be consulted.

the Kassites, Guti, Lullumu and Shubrians" (Grayson 1987: 131), and a number of Adad-nerari's successors—Shalmaneser I, Tukulti-Ninurta I, Aššur-reš-iši, Tiglath-Pileser I—also talk of vanquishing the Guti and the Lullumu at one time or another. While the Shubrians are to be located in the upper Tigris region, the Kassites, Guti and Lullumu are all inhabitants of the Zagros. Our knowledge of the geographic extent of these kingdoms and peoples is however not exact, something which hampers our understanding the question as to when Assyrian incursions first extended into the territory of present day Iran. But in any case these episodes are unlikely to have amounted to more than razzias to seize booty. The same can be said of the operations of Aššur-dan II and Tukulti-Ninurta II. Under Ashurnasirpal II, however, the conduct of these raids became more systematic. When Nur-Adad, a Lullubu chief in Zamua, withheld tribute, Ashurnasirpal carried out a campaign of savage retribution, laying waste the country, deporting the adult population, burning children on pyres. He also massively increased the tribute due and the craftsmen of the country were deported to work on new constructions at Kalhu.

This begins the formal process of the Assyrian subjugation of Zagros territories, initiating an involvement which will go on to the end of the seventh century B.C., a complex history of almost three hundred years. Shalmaneser III continued Ashurnasirpal's eastern policy, crushing a revolt of Namri, and advancing into western Media, territory for the first time definitively within the borders of Iran. Later his general Dayan-Aššur campaigned in Hubuškia, Mannea and Parsua. Šamši-Adad V campaigned against the Medes and Manneans in 820 B.C., collecting a massive quantity of tribute. With Adad-nerari III, while we know from the Eponym Chronicle that at least fifteen campaigns into the Zagros were carried out in his reign (variously labelled as to Mannea, Media, Hubuškia and Namri), no royal inscriptions which might have covered these in detail have so far been recovered. Very little is known of activities in the second quarter of the eighth century. This is a time when the Assyrian

government was compromised by internal strife. Elsewhere in the empire the power of the king was greatly diminished. This decline was reversed by Tiglath-Pileser III, who re-established Assyrian control in the east in two lengthy campaigns: in 744 B.C. he subsumed Parsua and Bit-Hamban as provinces into the Assyrian empire; in the campaign of 737 B.C. Mannea and Ellipi were brought under Assyrian rule. Sargon dealt with problems in Mannea and also annexed Karalla. In Parsua he captured the cities of Kišesim and Harhar, turning them into provincial capitals and renaming them Kar-Nergal and Kar-Šarrukin respectively. Sargon's conquests marked the high water mark of the Assyrian empire in the east. In the seventh century the situation changed rapidly. First Sennacherib had to fight off a major coalition of Elamites, Babylonian and Iranian opponents. A more intractable threat was posed by the movement of nomadic hordes across western Asia, the Scythians (coming from Azerbaijan) and the Cimmerians (from eastern Cappadocia). Although Esarhaddon succeeded in defeating the invasions of the Cimmerians (led by Teušpa, 679 B.C.), and of the Scythians (led by Išpakaya, ca. 679–677 B.C.), ultimately these peoples were contributors to the disintegration of Assyria. Another twist was the, partly voluntary, submission of Median chieftains to Assyrian authority, dramatically illustrated in the Vassal Treaties of Esarhaddon (672 B.C.), which, intended to cement loyalty to Assyria, may indeed have had exactly the opposite effect and provoked Media into revolt. This undoubtedly led to large scale losses for Assyria. As far as we know Ashurbanipal did not regain territory in Media but he did reassert authority in Mannea and indeed the latter appears to have remained a loyal ally to the end. The Medes by contrast went on to participate in the dismembering of the empire, capturing Arrapha in 615 B.C., Assur in 614 B.C. and finally Nineveh in 612 B.C. (Fig. 1). This gives a brief history of the Assyrian involvement in Iran. In order to understand how this actually impacted on the land, let us now illustrate this with quotations from the words of the Assyrian kings.

Fig. 1 One of the "Vassal treaties" of Esarhaddon, sworn oaths in which the Assyrian king imposed loyalty on his subjects across the Empire. This is the tablet recording the oath of Ramataya, the Median city lord of the Zagros polity of Urakazabanu (SAA 4, 6)

2 Shalmaneser I (1273–1244 B.C.)

After defeating the Guti "whose numbers, like the stars in the sky, no one knows", Shalmaneser I goes on to say "I brought to my city Assur their captives, herds, wild animals in captivity, and property" (Grayson 1987: 184)

3 Ashurnasirpal II (883–859 B.C.)

In the campaign of his accession year, Ashurnasirpal records "I went down to Mount Kirruru. I received the tribute of Mount Kirruru and Mount Simesu, the land Simerra, the land Ulmania, the land Adauš, the land Hargaia, the

Fig. 2 Scene from the Black Obelisk of Shalmaneser III (BM 118885) showing Sua of Gilzanu prostrating himself before the Assyrian king

Fig. 3 Bulls and dromedaries seized from Gilzanu by Shalmaneser III—scene from the bronze gates of Balawat (King 1915: plate XL)

land Harmasaia—horses, mules, oxen, sheep, wine (and) bronze casseroles. I imposed upon them *corvée*. While I was in Mount Kirruru the radiance of Aššur my lord overwhelmed the lands of Gilzanu and the and Hubušku (and) they brought to me as their tribute horses, silver, gold, tin, bronze (and) bronze casseroles" (Grayson 1991: 197, lines 54–58; Figs. 2 and 3).

> While I was in the land Zamua, awe of the radiance of Aššur my lord overwhelmed the people of the cities Hudun, Hartišu, Hubušku (and) Gilzanu, (and) they brought to me tribute and tax – [silver], gold, horses, garments [with multi-coloured trim], oxen, [sheep and wine] (Grayson 1991: 248, lines 103–109)

4 Shalmaneser III (858–824 B.C.)

In his accession year Shalmaneser records "I entered the pass of the land of Simesi and captured Aridu, the fortified city of Ninnu; I erected a tower of heads in front of the city. I burnt ten cities in its environs. While I was residing in the same city of Aridu I received tribute of teams of horses from the lands of Hargu, Harmasa, Sirišu, Ulmanu and Simerra" (Grayson 1996: 8, lines 15–18).

The king then invades Hubuškia, attacks the city of Sugunia in Urartu, and descends to the sea of the Nairi land (Lake Urmia); after conquering Gilzanu "I received tribute from Asû the Gilzanian: teams of horses (and) camels with two humps" (Grayson 1996: 9, lines 38–40).

In his sixteenth year the king records: "I moved out from Arbail, crossed Mount Kullar and established a fortress in the interior of the land of Zamua. I conquered the interior of the land of Zamua to the land Munna and from the land of Munna to the land of Allabria and the city Paddira, the fortified city of Ianziburiaš the Allabrian. I took booty from him: a door of gold, his palace women (and) the extensive property of his palace, I set ablaze (the regions stretching) from the city of Allabria to the city of Parsua, from the city of Parsua to the city of Abdadanu and from the city of Abdadanu to city of Haban. I overwhelmed them with my lordly brilliance. Marduk-Mudammiq king of the land Namri,

trusting in the might of his troops, mustered his numerous cavalry to wage war and battle against me. He drew up a battle line opposite to me at the river Namritu. I defeated him and took from him his cavalry. Marduk-Mudammiq, king of the land Namri took fright in the face of the flash of my strong weapons, and abandoned the cities of Šumurza, Bit-Nergal and Niqqu of the land of Tugliaš, his fortified cities and garrisons… I took as plunder his gods, his possessions and property, his palace women, and his harness-trained horses without number. I received tribute from Barû the Ellipian in the pass of the land of Tugliaš (Grayson 1996: 40, lines iii.58–iv.23).

In the Black Obelisk, Shalmaneser records "In my 24th year I crossed the Lower Zab, crossed Mount Hašimur and went down to the land of Namri. Ianzû king of Namri took fright in the face of my mighty weapons and ran away to save his life. I captured Šihišalah, Bit-Tamul, Bit-Šakki and Bit-Šedi, his fortified cities… moving on from Namri I received tribute from 27 kings of the land of Parsua. Moving on from Parsua I went down to the lands of Mesu, Media (Amadaya), Araziaš and Harhar and captured the cities of Kuakinda, Hazzanabi, Esamul and Kinablila, together with the cities in their environs…. I erected my royal statue in the city of Harhar. I uprooted Ianzû, the man of Bit-Haban, together with his rich property, his gods, his sons, his daughters and his numerous soldiers and brought them to Assyria" (Grayson 1996: 67–8, lines 110–126)… and in the same monument "In my twenty-ninth year I gave orders and sent out my army and camp. I went up to the land of Habhu and razed, destroyed and burnt their cities and annihilated their land like a flood, spreading my radiant fearfulness over them.

In my thirtieth regnal year, while I was residing in Calah, I gave orders and sent out Dayyan-Aššur, the field marshal, chief of my extensive army, at the head of my army. Crossing the Lower Zab, he approached the cities belonging to the city of Hubuškia. He received tribute from Datana the Hubuškian. Moving on from the cities belonging to the city of Hubuškia, he approached the cities belonging to the cities of Magdubu, the Madahisian, and received tribute. Moving on from the

cities of the land Madahisâ, he approached the cities of Udaku, the Mannean. Udaku the Mannean took fright in the face of the flash of my strong weapon, and abandoned Zirtu, his royal city, and ran away to save his life. He (Dayyan-Aššur) went after him and brought away his oxen, sheep and property without measure. Moving on from the land Mannaš, he approached the cities of Šulusunu of the land of HARna. He captured Maššuru his royal city, together with the cities in its environs, He spared Šulusunu together with his sons and brought him back to his land. He imposed upon him a tax and tribute of teams of horses. He approached the city Paddira and received tribute from Artasari, the Paddirian. He went down to the land Parsua, which was insubmissive to Aššur, and brought back their captives and property" (Grayson 1996: 69–70, lines 156–174).

> In my 31st year I threw the dice for a second time before Aššur and Adad; at that time, while I remained residing in Calah, I gave orders and sent out Dayyan-Aššur the field marshal, chief of my extensive army, at the head of my army and camp. He approached the cities of Datâ the Hubuškian and received tribute from him. He marched to Zapparia, the fortified city of the land of Mușașir. He captured Zapparia together with forty-six cities belonging to the people of Mușașir. He marched as far as the fortresses of the land of the Urartians and razed, destroyed (and) burned fifty of their cities. He went down to the land of Gilzanu and received tribute from Upû the Gilzanian, the Manneans, the people of the city of Gaburisu and of the lands of Harraniya, Šašganu, Andia (and) […]-ru: oxen, sheep and horses trained to the harness. He went down to the cities of the land of […] and razed, destroyed and burnt the cities of Pirria and Šitiuaria, his fortified cities, together with 22 cities in the environs. Thus he spread my radiant fearfulness over them. He marched to the cities of the land of Parsua and captured the cities of Puštu, Šalahamanu and Kinihamanu, fortified cities, together with 23 cities in their environs. He massacred them and plundered them. He went down to the land of Namri. Overwhelmed by fear of the radiance of Aššur and the god Marduk, they abandoned their cities and ascended a rugged mountain. He razed, destroyed and burned 250 of their cities. He went down through the pass of Simesi before the land of Halman (Grayson 1996: 69–71, lines 156–190).

An epigraph on the Black obelisk records "I received tribute from Sua the Gilzanian: silver, gold, tin, bronze vessels, the staff of the king's hand and two-humped camels" (Grayson 1996: 149).

In the Kurkh Monolith the king records "Moving on from the land of Gilzanu I approached the city Šilaia, a fortified city of Kaki, king of the land Hubuškia, I besieged the city, captured it and massacred many of them. I carried off from them 3,000 captives, oxen, sheep, horses, mules and donkeys without number and brought them to my city Assur. I entered the land of the Enzite and came through the passes of Kirruri before Arbail" (Grayson 1996: 21, lines 63–66).

5 Shamshi-Adad V (823–811)

In the course of his third campaign, Shamshi-Adad V, after progressing through Hubušku, Sunbu, Mannea, Parsua and Taurla, turned his attention to the people of Mesu "I brought down from the mountain countless quantities of booty, property, possessions, oxen, donkeys, sheep, teams of horses (and) camels with two humps" (Grayson 1996: 184–5, lines 53–57).

After defeating Hanaširuka the Mede "I took 140 of his cavalry from him and carried away his property and possessions in numbers beyond counting" (Grayson 1996: 185–6, lines iii.33–34) and after defeating Gizilbunda "I captured Pirišāti their king together with 1200 of his fighting men. I carried off from them countless quantities of booty, possessions, property, oxen, sheep, horses, utensils of silver (and gold) (and) pieces of bronze" (Grayson 1996, 185, lines iii.14–18).

6 Adad-Nirari III (810–783 B.C.)

In a slab from Nimrud Adad-nerari proclaims himself "Conqueror from Mount Siluna in the east, the lands of Namri, Ellipi, Harhar, Araziaš, Mesu, Media, Gizilbunda in its entirety, Munna, Parsua, Allabria, Abdadanu, Nairi in its entirety, which is far away, BADhu in its entirety as far as the great sea in the east" (Grayson 1996: 212, lines 5–14).

7 Tiglath-Pileser III (744–727 B.C.)

In his Summary Inscriptions Tiglath-Pileser III states "I sent my eunuch Aššur-da'inanni against the might Medes of the east and he took 5000 horses as well as people, cattle and sheep without number" (Tadmor and Yamada 2011: 103, lines 13–15) "I rebuilt Nikur together with the towns of its environs. I settled therein people of foreign lands conquered by me. [My eunuch as governor I placed over them]" (Tadmor and Yamada 2011: 31, lines 5–6).

After overwhelming Bit-Kapsi, Bit-Sangi (and) Bit-Urzakki "My army took without number […] their Bactrian camels, their oxen and their sheep and goats" (Tadmor and Yamada 2011: 31, line 8) After defeating Rameteia of the land of Araziaš "From the insubmissive cities rulers I received 300 talents of "lapis lazuli", 500 talents of *bil-in-zu* bronze" (Tadmor and Yamada 2011: 32, lines 9–10; Fig. 4).

In the campaign of his eighth year "I settled 555 captive highlanders (Guti) of the city Bit-Sangibuti in the city of Til-karme. I considered them as inhabitants of Assyria and imposed *corvée* labour on them like that of Assyrians" (Tadmor and Yamada 2011: 70, limes 1–2).

In the campaign of his ninth year "I received the payment of the Medes, the people of the land Ellipu and the city rulers of all of the mountain
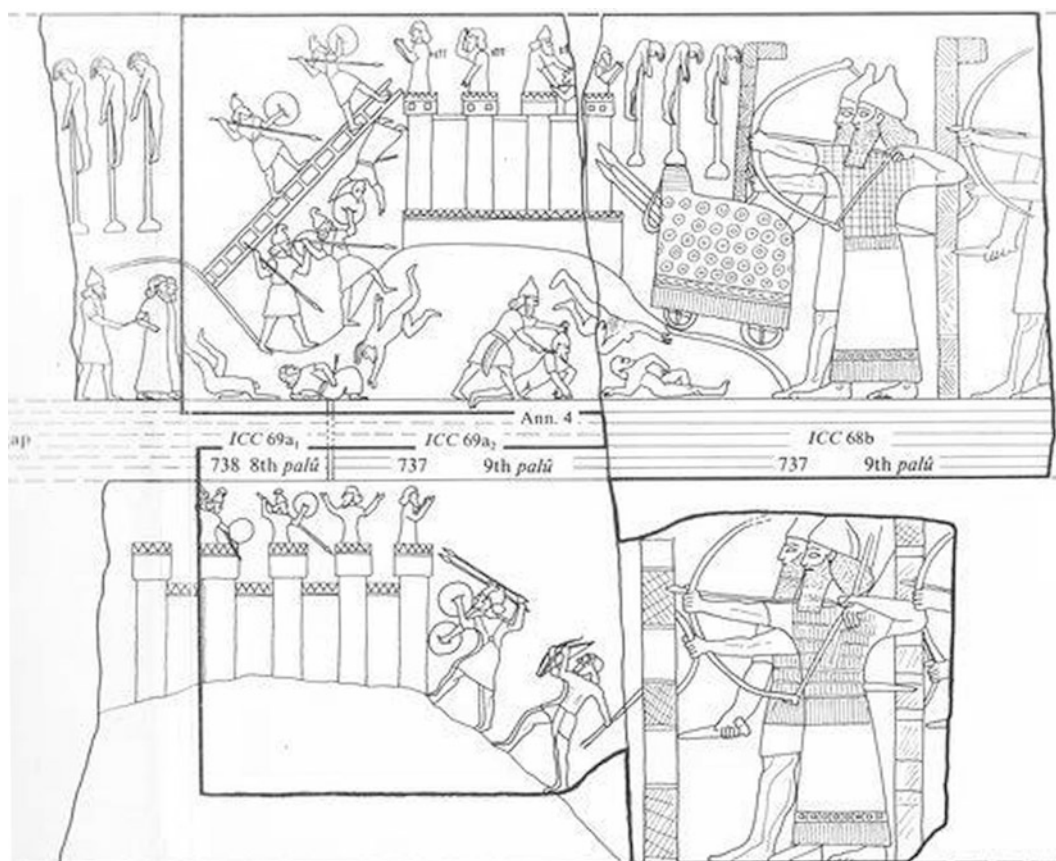

Fig. 4 Sculpture of Tiglath-Pileser III depicting the sacking of the city of Ú-pa-[…], most likely the capital of Upaš of Bit-kapsi (Tadmor 1992)

regions as far as Mount Bikni … horses, mules, camels, oxen and sheep and goats without number" (Tadmor and Yamada 2011: 53, lines 9–10).

In another summary inscription Tiglath-Pileser records "As with a bird snare, I ensnared the lands Namri, Bit-Sangibuti, Bit-Hamban, Sumurzu, Bit-Barrua, Bit-Zualzaš and Bit-Matti, the city of Niqqu of the land Tupliaš, the lands Bit-Taranzaya, Parsua, Bit-Zatti, Bit-Abdadani, Bit-Kapsi, Bit-Sangi (and) Bit-Urzakki, the cities Bit-Ištar (and) Zakruti, the lands Gizinikissi (and) Niššaya, the cities Şibur and Urimzan, the lands Ra'usan, Uparia, Bustus, Ariarma – the land of the roosters – Saksukni, Araquttu, Karzibra, Gukinnana (and) Bit-Sagbat, Mount Šilhazu, which they call the Fortress of the Babylonians, Mount Rua as far as the salt desert of the lands Ušqaqana (and) Šikrakki – (the land) of gold – (and) the districts of the mighty Medes to their full extent" (Tadmor and Yamada 2011: 120, lines 29–32).

In another summary inscription we also have the entry "Iranzu of Mannea heard about the glorious valour of the god Aššur, my lord, that I had accomplished again and again throughout all of the mountain regions, and the brilliance of the god Aššur, my lord, overwhelmed him. He came before me to the city Dur-Tiglath-pileser, which […], (and) kissed my feet. [I received…] horses, mules, oxen, sheep and goats, and military equipment" (Tadmor and Yamada 2011: 121, lines 39–41).

In the Iran stele inscription, Tiglath-Pileser records "Iranzu of Mannea… came to me in the city of Sumbi on the border of Assyria and kissed my feet. I received white, piebald, Haršian and Har-[…] horses … together with their trappings … majestic bulls … fattened sheep …" (Tadmor and Yamada 2011: 84, lies i.15–20).

Also in the Iran Stele inscription Tiglath-Pileser records that in the course of his ninth campaign, against the Medes "I received 130+ x horses from Bit-Ištar and its district; 120 (horses) from the cities of Ginizinanu, Sadbat and Sisad-[…], 100 (horses) from Upaš of Bit-Kapsi, 100 (horses) from Ušru of Nikisi, 100 (horses) from Ugsatar of Qarkinšera, 100 (horses) from

Yaubitir of A[mate], 300 (horses) from Bardada of Şibar, 33 (horses) from Amaku of Kitku-[…], 32 (horses) from Šataqupi of Uparia, 100 (horses) from Ramateya of Kazuqinzani, 100 (horses) from Metraku of Uparia, 200 (horses) from Šatašpa of Šaparda, 100 (horses) from Uitana of Mišita, 100 (horses) from Ametana of Uizak-[…], [… (horses) from Šata]-parnû of Urba-[…], […(horses) from…]-bâ of Sikrâ [… (horses) from…]-ia of Zakrute [… (horses) from…] of Aku-[…]" (Tadmor and Yamada 2011: 86, lines ii.30′–44′)

8 Sargon (722–705)

In the third year of his reign Sargon campaigned in support of the Mannean ruler Iranzu against a coalition headed by Mitatti of Zikirtu. After defeating this coalition "Because of the offence which they committed I tore them away from their homes and settled them in Hattu in the West (Amurru)" (Fuchs 1994: 92, lines 67–68).

After the capture of Harhar in the same year Sargon talks of the subjugation of six districts "The weapon of Aššur my lord I appointed as their deity. I called it Kar-Šarrukin. I received tribute from 28 city rulers of the land of the mighty Medes and I set up my image in Kar-Šarrukin" (Fuchs 1994: 105, lines 99–100; Fig. 5).

In order to consolidate his rule over the Medes Sargon reports "I conquered 34 districts of the Medes and brought them within the borders of Assyria. I imposed upon them a yearly tribute of horses" (Fuchs 1994: 212, lines 66–67).

In his seventh year, after restoring order to Mannea following the interference from Rusâ king of Urartu, Sargon reports: "I received in Hubushkia the tribute of Ianzû king of the land of Nairi. Nine cities […] of five provinces of Ursâ of Urartu […] I plundered their cattle and sheep […]. I captured eight fortresses of the region together with their surrounding villages in Tuaidi, a land of Telusina of Andia. I carried off 4,200 people together with their possessions. Those fortresses I destroyed, devastated and burnt with fire. I fashioned my royal image and
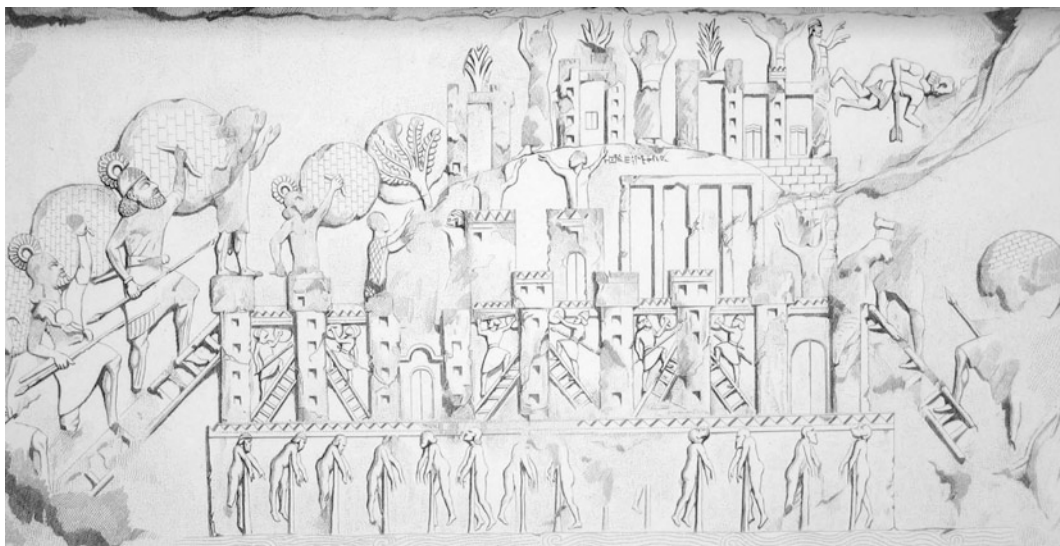
Fig. 5 The army of Sargon II besieges the Zagros stronghold of Harhar, which the king then renamed Kar-Šarrukin (Albenda 1986: pl. 126)

inscribed on it the might of Aššur my lord and set it up in Izirtu, the royal city of the Manneans. The people of the upper and lower rivers whom I had reckoned with the people of the city of Harhar in my former campaign and to whose side I had brought the lands of Bit-Sangibuti, Uriqatu, Sikris, Šaparda and Upparia, revolted against me: I struck down those districts with the sword and carried off their spoil. The cities of Ka- […]-na, Kinzarbara (?), Halbuknu, Šu- […], Anzaria of the upper and lower rivers I captured and 4,000 (+) *zimpani*,[2] their warriors, (and) 4,820 of their people I received in my camp. The cities of Kišešlu, Kindau, Anzaria and Bit-Gabia, which I captured, I rebuilt and I renamed them Kar-Nabû, Kar-Sin, Kar-Adad and Kar-Ištar. For the sub-jugation of the land of the Medes I strengthened the surroundings of Kar-Šarrukin… I received the tribute of 22 city rulers of the mighty Medes… I captured the city of Kimirra of the land of Bit-Hamban and carried off 2,530 people together with their possessions" (Fuchs 1994: 106–9, lines 104–116). In his ninth year, after defeating a revolt in Ellipi, Bit-Daiukki and

Karallu "I received 2,200 of their *zimpani* in my camp" (Fuchs 1994: 118, lines 168).

Also "I received as tribute from Ullusunu the Mannean, Daltâ of Ellipi and Bel-apal-iddin of Allabria, (together with) 45 Media city rulers, (a total) of 4609 horses, (as well as) mules, oxen and sheep without number" (Fuchs 1994: 122–3, line 191–3).

After five districts subject to Daltâ of Ellipi, a loyal servant of Assyria, revolted, Sargon went to his aid: "I besieged and captured those districts and carried off (their) people together with their possessions and horses without number into Assyria as a rich booty" (Fuchs 1994: 213–4, lines 71–72).

9 Sennacherib

In the campaign of his second year "I turned the front of my yoke and took the road to the land of Ellipi. Before my arrival Ispabara their king abandoned his fortified cities (and) his treasury and fled far away. I overwhelmed all of his wide land like a fog. I destroyed, devastated and burnt with fire the cities of Mar'ubištu and Akkuddu, cities of his royal house, together with 34

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[2]The meaning of *zimpani* is not known, but it seems probable that it was the indigenous term for a class of warrior.
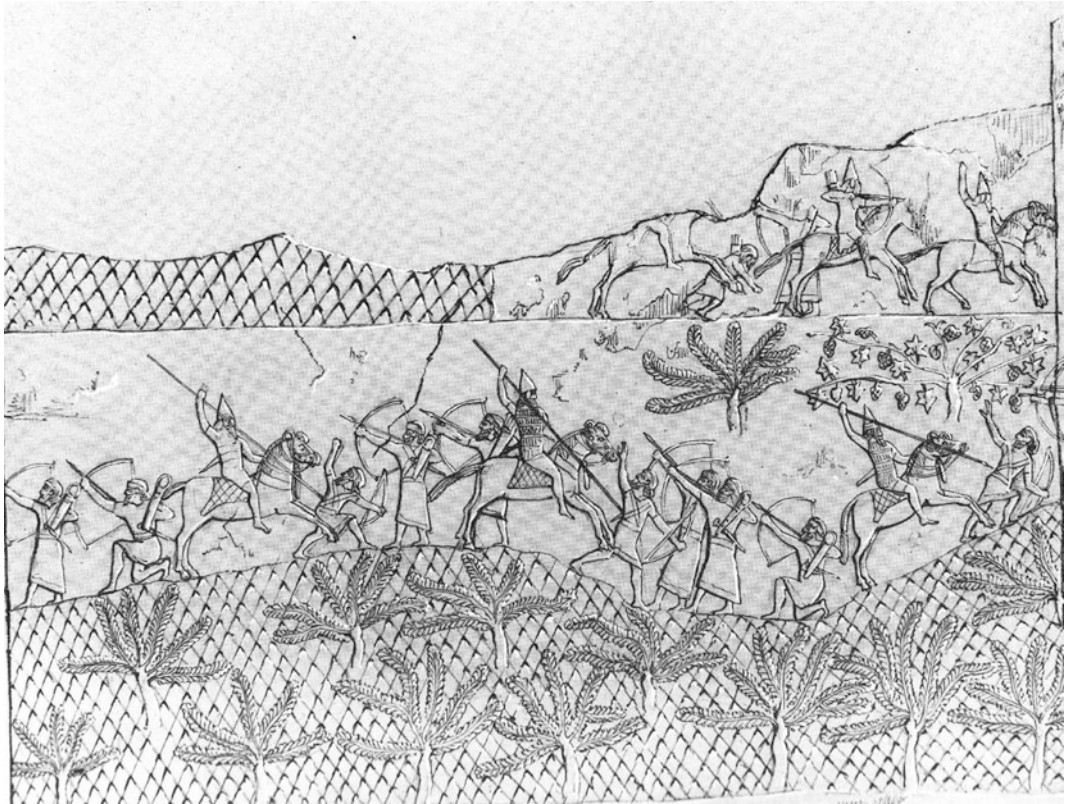
Fig. 6 Relief of Sennacherib depicting a scene from the king's first campaign, in the east (Barnett, Bleibtreu and Turner, pl. 92)

fortified cities and smaller settlements in their environs which were without number. Then I cut down their orchards and poured deathly quiet over their fertile fields. In this manner I reduced to desolation the land Ellipi to its full extent" (Grayson and Novotny 2012: 44, lines 27–29; Fig. 6).

Also "I turned the front of my yoke and took the road to the land of Ellipi. Before my arrival Ispabara their king abandoned his fortified cities (and) his treasury and fled far away. I overwhelmed all of his wide land like a fog. I surrounded, conquered, destroyed, devastated and burnt with fire the cities of Mar'ubištu and Akkuddu. I carried off people young and old, male and female, horses, mules, donkeys, camels, oxen and sheep and goats without number. Then I brought him to nought and made his land smaller. I detached from his land the

cities Șișirtu (and) Kummahlum, fortified cities, together with the smaller settlements of their environs (and) the district of the land Bit-Barrû in its entirety, and I added (this area) to the territory of Assyria. I took the city Elenzash as a royal city and a fortress for that district, then I changed its former name and called it Kar-Sennacherib. I settled therein the peoples of the lands that I had conquered. I placed (it) under the authority of a eunuch of mine, the governor of Harhar, and (thus) enlarged my land" (Grayson and Novotny 2012: 63, lines 25–27).

10 Esarhaddon

In the Nineveh A prism there are summaries of the king's expeditions to the east: "As for Uppis, chieftain of the city Partakka, Zanasana chieftain

Fig. 7 Tablet recording the oracular enquiry of Esarhaddon in which the king asks the sun god whether he should send an army to plunder the land of Karkašši (K 11442 = SAA 4 62)

of the city Partukka (and) Ramateia chieftain of the city Urakazabarna, Medes whose country is remote (and) who had not crossed the boundary of Assyria nor trodden on its soil in (the time) of th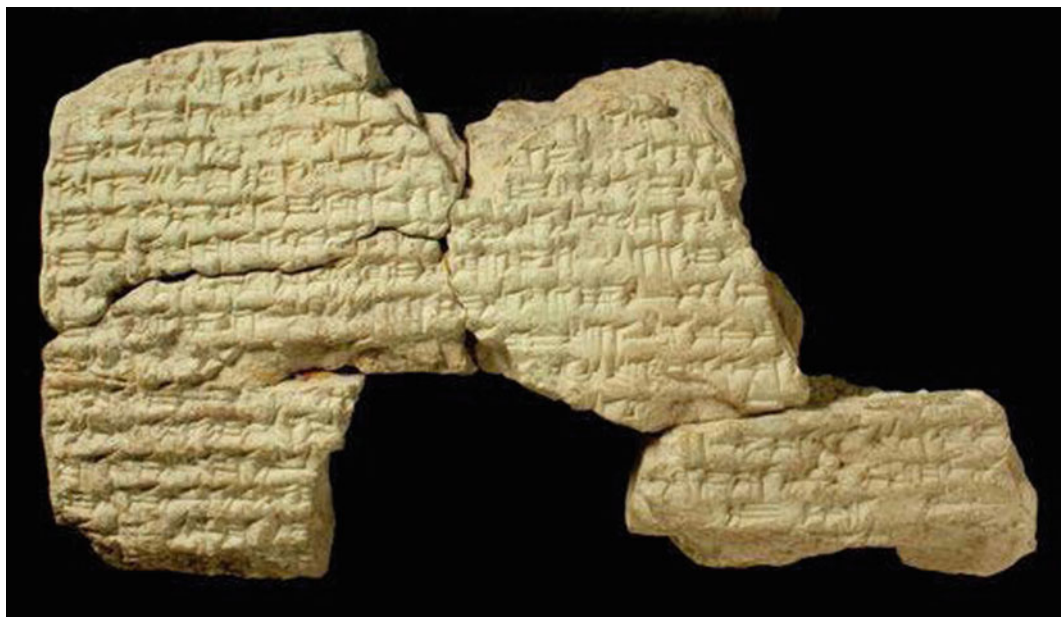e kings, my ancestors: the awesome fear of the god Aššur, my lord, overwhelmed them (and) they brought to Nineveh, my capital city, large thoroughbreds and blocks of lapis lazuli, hewn from its mountain, and they kissed my feet" (Leichty 2011: 20, iv.32–39).

> (As for) the land Patušarri, a district in the area of the salt desert, which is in the midst of the land of the distant Medes, bordering mount Bikni, the lapis lazuli mountain, (and) upon the soil of whose land none of the kings, my ancestors, had walked: I carried off to Assyria Šidir-parna and E-Parna, mighty chieftains, who were not submissive to (my) yoke, together with their people, their riding horses, oxen, sheep and goats (and) Bactrian camels, their heavy plunder (Leichty 2011: 20, lines 46–52).

Light is also shed on Esarhaddon's activities in Iran by a number of oracular enquiries. These include enquiries seeking to know whether he should send an army to plunder Karkašši (SAA 4, 62); whether the governor of an eastern province should advance into the Salt Desert to collect tribute (SAA 4, 64); and whether the magnates should march deep into Media to collect tribute, and, if they do so, whether they will collect a tribute of horses (SAA 4, 65; cf SAA 4, 66, 67, 69; Fig. 7).

11 Ashurbanipal

Ashurbanipal invaded Mannea in his fifth campaign: "I made straight for Ahšeru, king of the Manneans… his strong cities together with the small ones, whose number was countless, right up to the city of Izirtu, I captured, I destroyed, I devastated, I burnt with fire. People, horses, asses, cattle and sheep I brought out of those cities and accounted as booty" (Borger 1996: 220).

After the death of Ahšeru, his son Uallî sent his own son to Ashurbanipal in Nineveh beseeching mercy: "The former tribute which in the reign of the kings, my fathers, they had allowed to lapse, they brought before me (once more). Thirty horses I added to the former tribute and imposed (it) upon him" (Borger 1996: 221).

The above gives us an insight the treatment suffered by the Iranian territories at the hands of the Assyrians. The destruction inflicted comprised both destruction and violence to local populations and infrastructure, and exploitation of the surviving peoples and resources. Leaving aside the sheer devastation of land and cities, and the slaughter of indigenous people in both fighting and post-battle atrocities, the economic and social exploitation may be divided into three principal categories: deportation of indigenous populations, seizure of animal resources, and seizure of metal and mineral resources.

12   Deportation

The deportation of indigenous populations from the Iranian Zagros is recorded from the time of Shalmaneser III onwards.[3] Thus, in the course of the campaign of his twenty-fourth year, Shalmaneser records, "I uprooted Ianzû, the man of Bit-Haban, together with his rich property, his gods, his sons, his daughters and his numerous soldiers and brought them to Assyria"; Shalmaneser also led off 3000 captives from Kaki of Hubuškia, and his general Dayyan-Aššur brought back captives from Paddira. His successor Shamshi-Adad V does not mention deportation of civilian population, but he does record his seizing of enemy soldiers (see: below). With Tiglath-Pileser III, on the other hand, fragmentary though they are, the annals from his reign give a good illustration of his activities, and in fact the first explicit referral to reciprocal deportations. Thus, in the course of his second campaign, after defeating Bit-Abdadani, Tiglath-Pileser claims "I rebuilt Nikur together with the towns of its environs. I settled therein people of foreign lands conquered by me", while in the campaign of his eighth year he states, "I settled 555 captive highlanders (Guti) of the city Bit-Sangibuti in the city of Til-karme. I considered them as inhabitants of Assyria and imposed *corvée* labour on them like that of Assyrians".

Sargon records deporting populations from the Zagros (resettling the subjects of Mittati of Zikirtu in the West; deporting people from Bit-Hamban), while Sennacherib, after taking Elenzash, records the introduction of deportees from elsewhere. Esarhaddon and Ashurbanipal also both record deporting populations along with livestock.

This reciprocal deportation into Iran is not only known from the royal inscriptions. There is also evidence from the Old Testament—the Book of Kings records the deporting of the population of Israel to "Halah, the Habur, Gozan and the cities of the Medes", and there is a similar statement in the Book of Chronicles (cf MacGinnis 2014).[4] We also get an insight from the royal correspondence. For example, SAA 15 54, a letter from the time of Sargon, records captives from Tabal being brought to Nikkur and given houses, oxen, sheep and women (Fig. 8).

A subset of these deportations is the taking of the soldiers of the defeated opponent. As we have already seen, Shalmaneser III, after defeating Ianzû, took "his numerous soldiers", and the same king also took cavalry from Marduk-Mudammiq, king of the land of Namri. The practice continues with Shamshi-Adad V, who took 140 riders from the Mede Hanaširuka, as well as soldiers from Pirišati of Gizilbunda. Sargon took 4000 soldiers from defeated Median cities, and another 2200 from Ellipi, Bit-Daiukki and Karalla. Lastly, the plundering of resources also included the seizure of *matériel*, as for example Tiglath-Pileser III's taking of military supplies from Iranzu of Mannea.

This appropriation of soldiers and military equipment served the purpose of both stripping the defeated territory of its armed forces and at the same time of bolstering the Assyrian army. The inscriptions do not specify whether these deported soldiers were retained in their original units or whether they were disbanded and distributed among the regiments of the Assyrian army. The issue must indeed have posed a dilemma for the Assyrian authorities. On the one

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[3]For an overview of deportation in the Assyrian empire see: Oded (1979).

[4]An Israelite active Media is found in an administrative text from Nimrud (Galil 2009).
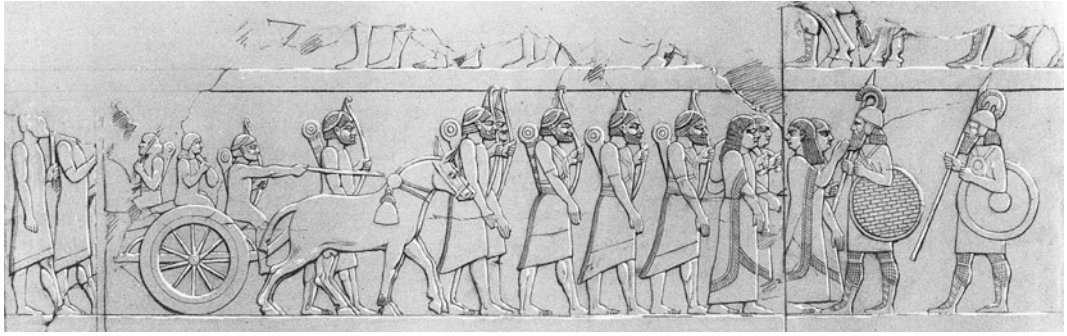
Fig. 8 Relief of Sennacherib depicting the deportation of enemy archers (Barnett, Bleibtreu and Turner, pl. 393) who are equipped with the same quivers with rounded ends as those seen in Fig. 5. These archers were incorporated as a unit into the Assyrian army and are subsequently seen taking part in the siege of Lachish

hand, incorporating foreign, recently defeated units of soldiers into the Assyrian army *en bloc* must have posed a threat to security; on the other, it would, at least initially, have been much more manageable to have people speaking the same language—and not speaking Assyrian—grouped together. Both models may have been utilised. In fact, the reliefs throw some light on this issue. Following the observations of Russell with regard to sculptures from Sennacherib's Southwest Palace, a body of foreign archers—characterised and identifiable by their rounded quivers—appear as opponents in a relief which may be attributed to Sennacherib's first campaign in the Zagros, and again as a unit serving in the Assyrian army in the siege of Lachish: evidently they had been taken by Sennacherib and incorporated into the Assyrian army. It is noteworthy that in the battle disposition depicted at Lachish this foreign unit is placed in front of the Assyrian archers, not behind!

In addition to deportation sensu stricto, there is also the matter of prisoners of war. It is clear that it was a common practice for captured individuals to be distributed among the soldiers as booty. This may be the context in which an emissary of Araši went to Nippur to ask why the Assyrians have taken captives after they have made peace with the king (SAA 16 137). To take an example from another part of the empire, in a recently published text from Maraş (ancient Marqasi) in Turkey, a slave being sold by a syndicate of thirteen individuals is interpreted as

most likely a prisoner of war who had been assigned to a group of soldiers who then wanted to realise the value in cash so that it could be fairly divided (Jiménez et al. 2015, No. 1); a similar transaction is a group of ten individuals selling two Elamite slaves (cf Jiménez et al., 155).[5] The same scenario may again underlie a text from Tarsus listing six Assyrians who are each in charge of one foreign-named individual (Schmitz 2009).

Another subset of the deported populations is women taken for the harem. Shalmaneser III took the palace women of Ianziburiaš of Allabria and of Marduk-Mudammiq of Namri. One supposes that these women will have been brought to Nimrud, but it should be noted that provincial capitals also had harems (cf SAA 7 23). In this context, it may be that the women listed in a tablet from the governor's palace at Ziyaret Tepe (Tušhan), who on the basis of their names are hypothesised to have been deported from the Zagros (MacGinnis 2012), may have been brought to Tušhan to serve in the harem.[6]

Another category to mention is the seizure and deportation of the gods of defeated states.

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[5]For evidence that the Assyrians themselves were deported following the fall of Nineveh, see: MacGinnis (2017) (referring to evidence from the Ebabbara of Sippar).

[6]The names in an unidentifiable language appearing on two ostraca from Tell Jemmeh have similarly been interpreted as belonging to deportees from the Zagros (Naveh 1985).

The classic study on this is Cogan (1974). With respect to Iran, Shalmaneser III records his taking of the gods of both Marduk-Mudammiq of Namri and of Ianzû of Bit-Haban. The degree to which the Assyrians imposed their own religion is not clear. Certainly every major Assyrian provincial centre had a temple, though it is not generally known to which deity (or deities) these were dedicated. Famously, Sargon, after defeating Harhar, not only renamed it but, in his words, "appointed the weapon of Aššur my lord as their deity". Again, the extent to which respect for the cult of Aššur was required is not clear.

13   Seizure of Animal Resources

The inscriptions record the seizure of animal resources on a vast scale. This included the seizure of horses, mules, donkeys, camels, oxen, bulls, sheep and goats.[7] In general, there is not much in the way of documentary corroboration of these appropriations, but the initial seizures of livestock may have generally been transformed into regular paying of tribute. This is clearly the situation behind the requirement of the Halmaneans to give 330 sheep annually as regular offerings (ginā'u) to Bel (SAA 13 166.11-14), and this may also be the context for the notes recording the receipt of horses and oxen from the governor of Parsua Ilu-taklak (SAA 7 128, 134).

The information on the appropriation of horses is much more extensive. From initial horse raids, the extraction of horses from the Zagros turned into a mechanism of mass exploitation, and the securing of horses from these territories was a preoccupation of every major Assyrian king active in the region (Radner 2003: 39f). Whether as one-off seizures or as tribute and audience gifts, the taking of horses is a constant theme. As Radner (2003: 42–43) puts it, "western Iran had been discovered as a source of horses, a commodity of unappeasable demand to Assyria; the army was entirely dependent on

horses, without which the army's backbone, the cavalry, could not exist". The yearly total brought in could reach into the thousands. Tiglath-Pileser III's Iran stele gives figures for the numbers of horses received from each of the Zagros chieftains whom he vanquished—"130+ x horses from Bit-Ištar and its district; 120 (horses) from the cities of Ginizinanu, Sadbat and Sisad-[…], 100 (horses) from Upaš of Bit-Kapsi" and so on (Radner 2003: 45). Broken and incomplete as it is, this passage indicates the acquisition of well over a thousand horses. In his ninth campaign Sargon reports receiving 4609 horses from Media, Ellipi and Allabria.

The claims of the royal inscriptions are corroborated by information in administrative texts, especially reports listing horses received by the central administration (SAA 11 106-121; SAA 13 83-123; CTN III 99-118). For examples, see below.

13.1   SAA 11 68

A list of horses delivered in 717 B.C.: "One mare, which Marduk-bani-ahhe, the bodyguard, brought in. Four horses of the Manneans, in the

Fig. 9 Horse tribute as depicted in a scene from Sargon's palace at Khorsabad (Albenda 1986: pl. 25)

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[7]Shalmaneser I also boasts of having taken *e-ma-mu*, which Grayson (1987: 184) translates "wild animals in captivity".

house of the treasurer. Nine horses of Par'u, in the town of Birtu. Total—fourteen horses for meat. Month of Kislev, eponymy of Ṭab-šar-Aššur" The supply of horses also features in the royal correspondence (Fig. 9).

13.2   SAA 13 104

> To the king my lord, your servant Nabû-šum-iddin, the very best of health to the king my lord! May Nabû and Marduk bless the king my lord! 30 Kushite horses from Parsua, 5 horses—deficit of the teams of Aššur, 16 Kushite, 47 Mesean, 88 horses in all from Lahiru, 46 Kushite horses, 52 Mesean, 98 in all from the land of […]

13.3   SAA 5 171

A letter reporting that the crown prince of Andia is arriving with a tribute of horses, consisting of "16 red horses, 13 *irginu* horses, 14 black horses, 1 Haršean horse, 1 *tuānu* horse, 6 mares (and) 5 mules; in all 51 horses from the crown prince of Andia".

Another letter reports that the Zalipeans are meant to be bringing horses, but that the horses were detained by the Manneans (SAA 15 53).[8]

In these sources the horses are classified into the following types: red, black, white, piebald, *irginu*, *harbakannu*, *tuānu*, Haršean, Mesean, Kushite and Egyptian. The first seven terms are colour descriptives, although we do not know exactly what *irginu*, *harbakannu* and *tuānu* denoted.[9] The other classifications Haršean, Mesean, Kushite and Egyptian are geographic and may therefore be assumed to refer to breed. Haršu and Mesu are both localities in the Zagros, while Kush refers, most probably, to northern Sudan; Egyptian horses may well be the same as Kushite, the label indicating that they were

sourced via Egypt (Dalley 1985: 43). But note that Mesean horses are not only documented coming from the Zagros—they are attested also coming from Dur-Šarrukin, Tillê, Lahiru, Barhalzi and Kalhu. Kushite horses are similarly attested as coming from Assyria (Nineveh Kalhu, Erbil, Dur-Šarrukin, Kilizu, Barhalzi, Isana, Simmê), Syria (Damascus, Kullania, Qarnê and the province of the *turtānu*), the Northeast (the province of the Chief Cupbearer) and the East (Arrapha, Lahiru, Parsua and the province of the Palace Herald).[10] Very likely this can be taken as evidence for the maintenance of breeding programmes in each of these provinces.

It is important to note that the supply of horses was not only achieved through military means. It is clear that side by side with this there was a mechanism for acquiring horses by trade. From the time of Tiglath-Pileser III horse traders (*tamkār sisē*) were active in the Zagros (Radner 2003: 44; Dalley 1985: 47).[11] Once again, this is backed up by letters from the royal correspondence. We quote from two letters from the governor of Mazamua.

13.4   SAA 5 202

> As to what the king, my lord, wrote to me, 'If horses of such size fall into your hands, get them and send them to me', Kumesaen merchants have reviewed (their stock and) together […]… I waited for them, but since they did not come to me, I sent the servants of the king, my lord, to terrorise Kibatki, and they put the people to the sword. After this act of terror on Kibatki they became afraid and wrote to me, and I imposed a deadline upon them.

13.5   SAA 5 224

"To the king my lord, your servant Adad-issiya. Good health to the king my lord! As to the

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[8]SAA 19 169 reports the progress of the king of Karalla on his way to Kalhu bringing tribute, but does not specify of what this consisted.

[9]The Chicago Assyrian Dictionary gives for *tuānu* "a color or breed of horses", noting that in one case the word *har-ba-ka-nu* occurs in the place in a list of horses occupied elsewhere by *tu-a-nu* (CAD T p. 444).

[10]For more on horses from Kush see: Dalley (1985): 43f, where, following Postgate (1974: 11 & n1), it is suggested that Kushite horses were used for chariotry and Mesean horses for cavalry.

[11]A horse trader is witness to the sale of a garden in Kar-Nabû (Radner 2013: 450).

merchants about whom the king my lord gave me orders, I met Šarî of Kannu' in Arzuhina. He had 70 horses. I asked him where the rest of his horses were, and he said, 'I have bought 200 horses over there and will bring them later'. [I also met …] and asked him about the horses; he said 'We have brought all of them; they are on their way to you. I encountered 21 horses and 2 mules of Nabû-eriba of Kalhu, a subordinate of Sanî, in Arzuhina'." Another letter reports that the king of Zikirtu has committed to selling horses in Pašsate (SAA 5 169).

14   Seizure of Metal Resources

The royal inscriptions record the taking of silver, gold, bronze and tin.[12] Occasionally it is specified that these metals are taken in the form of fashioned objects, for example bronze vessels, a royal sceptre and military equipment. It is noteworthy that iron is not in this list. Both Tiglath-Pileser III and Esarhaddon record receiving lapis lazuli "hewn from the mountain" (hi-ip šad-di-šu), the former taking it in the theatre of operations, the latter having it brought to him in Nineveh; Esarhaddon also refers to "Mount Bikni, the lapis lazuli mountain", located in a distant part of Media (Leichty 2011, 20, lines 47). Beyond this, it should be mentioned that Shalmaneser III ascended a "silver mountain" (which he names as Mount Tunni, Grayson 1996, 79, lines 174–5), Shamshi-Adad V mentions crossing an "antimony mountain" (Grayson 1996, 185, line iii.3–4), and Tiglath-Pileser III refers to Šikrakki as "(the land) of gold" (Tadmor and Yamada 2011, 120, line 32). As the Assyrians clearly associated these places with these metals (or ores), it must be assumed that they had access to these resources, whether by tribute, outright seizure, or trade.[13]

This brings us to the point that, all the above notwithstanding, side by side with the appropriation of resources by force of arms, the Assyrians also conducted trade in the Zagros. This has already been touched upon with regard to horses, and this may have indeed have been the most important item, but the Assyrians are likely, in return for luxury goods from all parts of the empire,[14] to have sought by trade the same range of materials recorded in the royal inscriptions—horses, metals, minerals—as well as some others such as textiles[15] and perhaps select foodstuffs.

One illustration of this is provided by a letter from Uruk which reports a caravan arriving from Lahiru with wool from Bit-Hamban (SAA 17 136). The means for how trade could flourish in the face of blatant military seizure of resources is opaque, but evidently this was indeed the case. Not for nothing did the prophet Nahum fulminate against Assyria, "You have multiplied your merchants like the stars of heaven but like locust they strip the land and fly away" (Nahum 3: 16; Fig. 10).

The many kāru's—trade entrepôts—established in the east clearly supports this (Radner 2003: 51–52; Yamada 2005); in the words of Yamada (2005: 62), "the Assyrians were ready to enhance the local economy by encouraging trade along their new frontiers". It has been suggested that the term bīt kāri was used to designate the whole group of cities in the Zagros conquered by Sargon and renamed with the kāru formula (Kār-Šarrukīn, Kār-Nergal, Kār-Nabû, Kār-Sîn, Kār-Adad, Kār-Ištar; cf. Radner 2003: 51). We know of the existence of a senior official with the title rab kāri (Yamada 2005: 77–78), and it may be that he was in charge of the trading operations across the Zagros provinces.[16] His relationship to

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[12]For remarks on Iranian metal resources, see: Potts (1994: 143–176) and Potts (1997: 164–184).

[13]For remarks on the import of mineral resources from Iran into Mesopotamia in the earlier periods, See: Potts (1994); it is noteworthy that the Assyrian kings do not mention carnelian, at least one source of which was in Iran (Potts 1997: 265).

[14]The prophet Ezekiel mentions Assyrian trade in blue-colored textiles, embroidery and coloured carpets (Ezekiel 27: 23–24).

[15]Additional evidence that textiles of eastern style were prized comes from the presence of a family of Hundure-ans living in Assur and working as weavers in the Temple of Aššur (Radner 2003: 62–63, 2013, 447–449).

[16]There may of course have been other officials with the title rab kāri responsible for the kāru's/bīt kāri's in other parts of the empire.
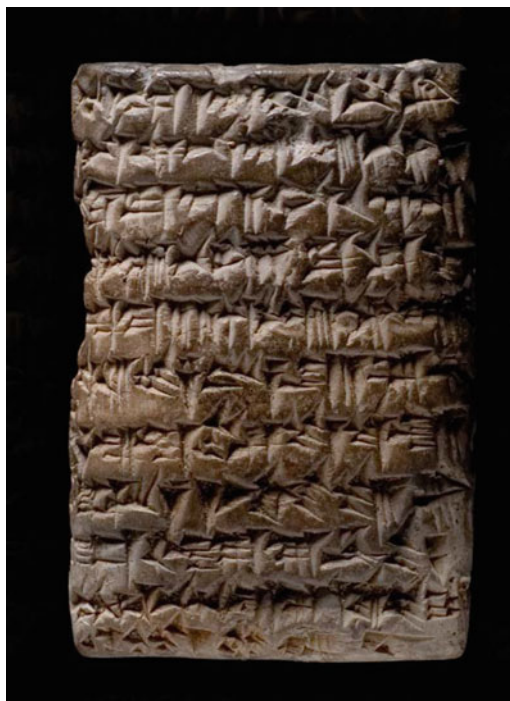
Fig. 10 Letter to the king, probably Sennacherib, reporting the arrival in Lahiru, in eastern Mesopotamia, of a caravan with wool from Bit-Hamban (K 823 = SAA 17, 136)

the provincial governors is unknown, but note an oracular enquiry (SAA 4 94) in which Esarhaddon asks whether he should send the *rab kāri* against the enemy (Yamada 2005: 79).

This concludes our survey of Assyrian exploitation of its Zagros territories. To date our insights comes primarily from the rich evidence of the cuneiform texts, but it may be hoped that in the years to come this data will be supplemented by discoveries from archaeological investigations.

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On Cultural Boundaries and Languages in Western Iran: The Case of the Zagros Gates

D. T. Potts

Hic erat ex Assyria in Mediam transitus (Katancsich 1825: 380)

Abstract

This study examines the nature and history of the cultural, political and linguistic boundary that runs along the western side of the Iranian region, through the Zagros mountains. A long-term evaluation of that boundary, from antiquity through the modern era, shows how the boundary between the Zagrosian and Assyro-Babylonian worlds, and between later states, such as Safavid and Qajar Iran, and the Ottoman empire, has undergone change, such that sites and towns commonly thought of as being in one cultural sphere were, at times, in another. The significance of boundary zones, as opposed to clear-cut boundary lines, is examined.

1 Introduction

It is readily apparent to most archaeologists and historians that modern national borders are not generally coterminous with the boundaries of pre-modern cultural zones. The present study is con-cerned with the boundary between what might be called the Zagrosian (pre-Iranian) and the Assyro-Babylonian zones, a boundary that was as important in antiquity as it has been in the early modern past, and was cross-cut by a major transport route known in Islamic sources as the Khorasan Road (Sprenger 1864: 11–18; Rausch von Traubenberg 1890: 72–77; Le Strange 1900: 217; Schwarz 1926: 899–915).

Two factors have strongly influenced our perception of where the boundary between the Zagrosian and Assyro-Babylonian zones was located, one topographical and the other juris-dictional. The topographical factor is the barrier constituted by the Zagros mountain range itself. So imposing are these mountains that it is easy to adhere to the belief that they have always marked the boundary between Mesopotamia and its eastern neighbours. Gutians, Lullubians, Tur-ukkeans, Kassites, Manneans, Medes, Ellipians and many other groups inhabited the mountain zone and the adjacent parts of the Iranian plateau, while Sumerians, Akkadians, Babylonians, Assyrians, and Chaldaeans lived on the alluvial plain. In reality, of course, the division between these two worlds was not nearly so neat. The Assyrians, for example, established a number of provinces in the Zagros, while the Achaemenid, Arsacid and Sasanian empires all succeeded in bringing the Zagros and the Mesopotamian lowlands under one political authority.

The jurisdictional factor is that body of trea-ties which have reified the Iran-Iraq border since

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the Peace of Amasya (1555). Although the text of the 1555 treaty is no longer extant, it is known that the terms did not demarcate a fixed boundary *line* between the Ottoman and Safavid realms, but rather a boundary *zone*, c. 160 km. wide, extending from Basra all the way north to Georgia (McLachlan 2013). This practice of identifying a boundary zone between Ottoman and Persian territory, rather than a boundary per se, set a precedent that lasted for centuries. Thus, despite the fact that the Treaty of Zohāb (1639) appointed a Safavid plenipotentiary named Saroukhan, to 'establish and fix the state of the frontiers' (Blech and Sherwood 1912: 764), neither the language of the treaty nor the toponyms named in it make it an easy task to discern where the frontier actually lay. For example, in the treaty we read, 'Pezai [Rez'āyī?] and Zerdony [Zardoni/u, Republic of Azerbaijan] remain to the Shah. The fortress of Zindjir [Qal'eh Zanjīr, north of Kerend-e Gharb], which lies on the top of the mountain, shall be demolished; the Sultan will take possession of the Villages lying westward of it, and the Shah will take possession of those lying eastward. The Villages on the Mountain above Sailm Calè [Salim Qal'eh], near Chehrezor [Šahrezūr] will be in the possession of the Sultan, and the Villages lying on the East, will be in the possession of the Shah, who will also keep the Castle of Orman [O/Urman, near the current border between Turkey and Iraq, between Mosul and Hakkari] with the Villages which are dependent on it. The defile leading to Chehrezor [probably mod. Khurmal; see Altaweel et al. 2012: 16] has been established as a frontier' (Blech and Sherwood 1912: 765). Stipulations like these made absolutely no attempt to systematically describe the frontier zone, leaving ample room for divergent interpretation. As Kashani-Sabet noted, the Treaty of Zohāb 'mitigated the conflict' between Safavid Persia and Ottoman Turkey but 'separated rather vaguely the lands of the sultan and the shah' (Kashani-Sabet 1997: 213).

Following renewed hostilities, the treaty of 1727 ignored the question of borders, while that of 1746 simply referred to the 'confines and limits which have hitherto been observed,'

according to the treaty of 1639, and affirmed that they be subject to no alteration, change or diminution (Hertslet 1891: 158). Reconfirmation of the *status quo* as per the 1639 treaty was also stipulated in the treaty of 1747 (Hertslet 1891: 162).

Around 1811 Mohammed Ali Mirza, who had been appointed governor of Kermanshah in 1809 (Amanat 2011) and was described by J. S. Buckingham as 'a high-spirited and aspiring character, and a great favourite of the nation'(Buckingham 1830: 415), 'annexed' the district (*buluk*) of Zohāb, one of ten *pashaliks* dependent on Ottoman Baghdad (Mordtmann 1874: 373; Rawlinson 1839: 26, whose paper was dated to 28 January, 1838, said it occurred 'around thirty years ago'). Although the treaty of 1823 reaffirmed the boundaries of the treaty of 1746 (which went back to 1639) (Hertslet 1891: 164), 'Zohab ought certainly to have been given up to the Turkish authorities, but Persia had neither the will to render this act of justice, nor had the Pasha of Bagdad the power to enforce it, and Zohab, although still claimed by the Porte, has thus remained to the present day [1839] in possession of the Government of Kermanshah' (Rawlinson 1839: 26). Indeed, Zohāb was never relinquished and, as Rawlinson noted, because it was acquired through war, Zohāb automatically became crown land.

In Rawlinson's day the Zagros Gates were known as 'the pass of Ṭáḳi-Girráh [Ṭāq-e Girrā] …the great thoroughfare of communication in all ages between Media and Babylonia', while to the Arab geographers it was ''Aḳabah-i-Ḥolwán (the defile of Ḥolwán), and among the Kurds, Gardanahi-Ṭáḳi-Girráh (the pass of Ṭáḳi-Girráh) which signifies "the arch holding the road," in reference to a freestanding arch of ashlar masonry (Rawlinson 1839: 34). Yaqut referred to location of the arch (more accurately *ayvān*), as Māh Druwāspān, and said that it had been built by Bahrām Gōr (disputed by Herzfeld 1907: 54; Sarre and Herzfeld 1910: 233). He also said that, according to tradition, snow only ever fell on the side facing Media, but never on the side facing Iraq (Sarre and Herzfeld 1910: 233). In 1840 Layard added, 'On the summit [of the pass] is a

large caravanserai and a village named Surreh-Dereh. Here we crossed the Persian frontier, and then descended rapidly to the very pretty village of Kirrind' (Layard 1887: 220). Five years later, when J. P. Ferrier travelled along the Khorasan road, coming from Baghdad, he called Kerend 'the first station within the Persian frontier' (Ferrier 1857: 4; cf. Prellberg 1891: 66). The combined testimony of Layard and Ferrier shows that the frontier was much further to the east than one might have supposed, given that the *pashalik* of Zohāb had been annexed by Persia.

The terms of the treaty of 1847 were somewhat different than those found in earlier treaties. Four British, Russian, Turkish and Persian boundary commissioners had spent the years 1844–1847 in Erzerum working on the treaty finally released in 1847. According to this the government of Persia ceded all 'flat terrain, i.e. the western part of the province of Zohab', to the Ottomans, while the Ottomans ceded 'all of the mountainous territory of the province of Zohab, including the Kerrind [Kerend-e Gharb] valley' to Persia (Hertslet 1891: 169). Travelling along the Khorasan Road in 1847, Felix Jones noted, *apropos* the Ṭāq-e Girrā, 'It was then, as it is now, the main pass on the high road between those provinces [Babylonia, Assyria] and the royal city [Ecbatana], and formed the boundary between Media and Assyria; and in the subsequent dynasties of the Seleucidæ, the Parthians, and the Sasanians, it undoubtedly held a conspicuous place in the boundary compacts entered into by the successive monarchs that have ruled over these disturbed tracts: and, strictly speaking, at the present time forms the line of demarcation between the Ottoman and the Persian empires' (Jones 1849: 266).

Firm demarcation of the boundary, however, was yet to be accomplished. The boundary commission continued to work in Baghdad and Mohamrah from 1849 to 1851 with no result. An eyewitness account of the yet to be determined boundary zone was given by H. A. Stern when he described a journey made in February, 1852. After leaving Qasr-e Širīn, he wrote, 'Making my way through the hard frozen snow and mud, I reached Sirpool [Sar-e Pol-e Zohāb]…. The

following day we ascended the Zagri Pylae, the Median gates of the Romans, and the boundary line between the two rival kingdoms… and as the road was reported safe… I pushed on, and about sunset reached Kerrind… On the following morning we took our leave of the Assyrian mountains, and entered the far-stretching fertile pasture grounds of the ancient Medes' (Stern 1854: 235). In 1852/3, when H. Petermann followed the route, coming from Iran, he did not enter Turkish territory until he arrived at Ḫāniḵīn (Petermann 1861: 269).

It was only in November, 1857, however, that representatives from both the Persian and the Ottoman governments, along with British and Russian surveyors, began a complete survey of a 25–40 mile (40–64 km) wide swathe of territory, 700 miles (1127 km) long, from Mt. Ararat to the Persian Gulf. The survey was not completed until March, 1865, when the Ottoman authorities were informed that, 'in the opinion of the Mediating Powers, the future line of boundary between the respective dominions of the Sultan and the Shah was to be found within the limits traced on the Map; that the two Mahommedan Governments should themselves mark out the line; and that, in the event of any differences arising between them in regard to any particular locality, the points in dispute should be referred to the decision of the Governments of England and Russia' (Hertslet 1891: 218; cf. Aitchison 1892: 24).

Persia and Turkey signed yet another boundary protocol in 1869 (Aitchison 1892: lvii–lviii, Appendix 18), which was renewed in 1873, but border disputes arose frequently, particularly along 'the south-western slope of the Pusht-i-Koh range, near the Tigris,' in 1871; 'on the Turko- Persian frontier at Khoi and Zohab', in 1876–77 (Aitchison 1892: 24); and again in 1884, 1889 and 1890 (Greenfield 1904: 44). The broad boundary zone defined by the survey of 1857–65 resulted in the creation of border towns that were not contiguous. Thus, for example, an 1871 compendium of routes called Ḫāniḵīn 'the frontier town of Turkish Irak', whereas Qasr-e Širīn was called 'the frontier station of Persian Irak' (MacGregor 1871: 622–623). Nowadays, the distance by road between the two is

c. 32–34 km. A description published almost two decades later noted that, coming from the east, after crossing the Zagros Gates (Zagri Pylæ), the road wound down the valley of the Ḥolwān [Alwand] river [a tributary of the Diyala] and crossed it at Sar-e Pol-e Zohab. Having crossed this pass, one was no longer on the Iranian plateau but rather in the Tigris plain, even though the political boundary of Persia was not reached for another 53 km. (Rausch von Traubenberg, 1890: 75). The topographic contrast just referred to was vividly described by Bellew who wrote, looking towards the east, from Sar-e Pol-e Zohāb, Bellew wrote in 1874, 'The view on looking back is peculiar and strikingly curious. The hills rise abruptly from the plain, and form a well-defined barrier, that extends west and east, a great buttress supporting the tablelands of Persia against the valley of the Tigris on the one hand, and the littoral of the Persian Gulf on the other' (Bellew, 1874: 447).

Whigham's account of traversing the Ṭāq-e Girrā is one of the most vivid. On coming from Qasr-e Širīn, he wrote, 'the Persian plateau is still two days' March away, and… is reached by the famous Tak- i-Girra Pass, or the Gates of Zagros At the Tak-i-Girra the traveller, who has been rising very gradually to higher levels ever since he left Shahreban, makes a sudden leap as it were from the footstool to the table, and finds himself after an hour's steep climb nearly 6000 feet above the sea, and in March at least in the region of snow. After making the ascent the track turns from east to south along a valley almost narrow enough to be called a defile, with dark forbidding mountains on either side, and many miles of stones and boulders under foot. The wretched pack-animals flounder painfully from boulder to boulder, slipping from time to time into a slough of mud, with the constant danger of a broken limb…. And yet the Tak-i-Girra is supposed to be the easiest approach to the plateau for any merchandise coming by way of the Gulf, and such heavy articles as pianos or stoves are generally sent this way to Teheran. Personally I cannot imagine anything much worse, especially in the early spring, when the snows are melting…. After getting through the long defile at the

top of the pass the route runs easily along to Kermanshah, through wider valleys and across several ranges which, however, have always an easy "nek" or "port," and present no difficulty' (Whigham 1903: 268–269). In an account published a year after Whigham's appeared, Ronaldshay wrote, 'As you journey eastward into Persia along the old highway from Media to Babylonia, you rise at one bound from the level plains of Assyria and Chaldæa to the elevated tableland of the Iranian plateau, ascending the rock walls of the historic "Zagros Gates". Here, on the western extremity of the Persian highlands, a series of gorges, mountain-ranges, and elevated plateaux confront you, forming a barrier as it were between the level stretches of Mesopotamia on the one side and the vasdt inhospitable reaches of Central Persia on the other' (Ronaldshay 1904: 6). Similarly Napier noted, 'The mighty Zagros range, forming a buttress between Mesopotamia and Kirmanshah, is crossed at the gap called Tak-i-Girra between Khanikin and Karind: a formidable climb from the Mesopotamian plain to the Persian plateau, but an easy descent when travelling from east to west. The road, which from the frontier to Kirmanshah is in the nature of a bottle-neck, is the natural line of invasion of Persia from the west, and has been so used from time immemorial' (Napier 1919: 1).

The ease of the passage, however, is deceptive, for as Napier himself noted, 'The drop to the Mesopotamian plain, known as the Tak-i-Girra, has recently been much improved by the pioneers of the Mesopotamian Expeditionary Force both as regards surface and also by realigning the worst zigzags. It is still, however, a very formidable climb of over 1000 ft when entering Persia from the west. The Chahar Zabar pass between the Mahidasht plain and Hassanabad and the stony Na'l Shikan between that place and Harunabad are both very slippery and difficult in wet weather, but the 12 miles of the Mahidasht plain and the 18 miles of the Karind Plain become almost impassable quagmires after heavy rain' (Napier 1919: 11). Indeed, in the opinion of Rawlinson, both the Ṭāq-e Girrā and the somewhat easier Gīl-u-Gīlān, which made the journey

longer, were so difficult that he doubted either was ever used by a larger mounted or infantry force to invade Iran (Ritter 1840: 483).

The linguistic imprint of Persian to the west of the Ṭāq-e Girrā was apparent to Herzfeld. Describing the population of such towns as Qizil Robat and Ḫāniḵīn, Herzfeld noted that in 1905 they were overwhelmingly Persophone (Herzfeld 1907: 51). Moreover, he noted that at this time Ḫāniḵīn, which is today c. 11–12 km. from the Iran-Iraq border, was the last town on Ottoman soil, housing the quarantine station in a large *caravanserai*, an important stopping point for Persian pilgrims *en route* to Kerbelā and Najaf. When Herzfeld was there, the Turkish border post at the entrance to the Ḥolwān river valley was located at Qaleh Redifiye, about one hour west of the Persian border post at Qaleh Sabzi. 'Genauer ist die Grenze nicht bestimmt' ('More exactly [than this] the border is not defined', Herzfeld 1907: 52).

2 Ancient Evidence of the Assyro-Babylonian/Zagrosian Boundary

The foregoing accounts make it clear that, even after the commencement of boundary treaties between the Ottomans and their Safavid and Qajar counterparts, the location of the frontier between East and West, at least in the area traversed by the Great Khorasan Road, did not so much fluctuate as resist definitive demarcation. Nevertheless, several points stand out:

- Ḫāniḵīn was the last station in Turkish Iraq (1853—Petermann; 1871—MacGregor; 1890 —Rausch von Traubenberg; 1905—Herzfeld).
- Kerend was the last station in Qajar Persia (1845—Ferrier) as per the Treaty of 1847.
- Qasr-e Širīn was the last station in Qajar Persia (1871—MacGregor).
- A customs house was located at Qasr-e Širīn (1891—Prellberg 1891: 66).

The discrepancies here are great, attesting to the existence of a border zone rather than a boundary as such. Kerend, for example, is over 100 km. (105 or 127 km. depending on the road taken from Qasr-e Širīn) from Ḫāniḵīn, while Qasr-e Širīn is only c. 31 km. from it. Until the Treaty of 1847, therefore, Turkish Iraq extended much further to the east than it did after the treaty was signed. Before 1847, therefore, places which are today in Iran and thought of as bearing testimony to Iranian antiquity, most notably Qasr-e Širīn, Sar-e Pol-e Zohāb and Kerend, were not within the borders of Iran.

Bearing these points in mind and, shedding, for a moment, our conception of where that boundary must have been, it is interesting to consider some of the more ancient evidence that reflects the situation in the 2nd and 1st millennia B. C.. How stable was the cultural boundary between the Assyro-Babylonian and Zagrosian worlds in this region? How much and when did it shift? To answer these questions we shall examine three bodies of data in chronological order.

3 The Chogha Gavaneh Texts

In 1970 excavations at Chogha Gavaneh in modern Eslamabad-e Gharb (formerly Harunabad and Shahabad-e Gharb) recovered 56 cuneiform texts datable to the eighteenth century B.C.. When these were published in 2007 their contents proved illuminating (Abdi and Beckman 2007). Not only were the personal names in these texts overwhelmingly Akkadian, with no evidence of Elamite or Hurrian admixture. Additionally, the theophoric elements in those names were largely Mesopotamian and the month names attested were the same as those used in the Amorite calendars of Ešnunna (Tell Asmar) and Nerebtum (Tell Ischali) in the Diyala region of eastern Iraq. Nothing suggests that these texts belonged to a trading colony (karû) like that of Karum Kaneš (Kültepe) in Anatolia, implanted amongst a native, Zagrosian population, as suggested by Steinkeller (2013: 311). Rather, judging by the texts, the population consisted of Akkadian speakers, implying that Chogha Gavaneh was culturally Babylonian.

At least two explanations for this situation suggest themselves. One possibility is that

Chogha Gavaneh was under the control of a culturally Babylonian kingdom. While this could have been the Old Babylonian state itself, the fact that the calendar used at the site is attested in the Diyala, particularly in the independent kingdom of Ešnunna, raises the possibility that this state included Chogha Gavaneh within its territory (Potts n.d.). As Fuchs noted several years ago, control over the western part of the Khorasan Road, including Ḥalman and Namar (see: below), fell almost necessarily to whatever power controlled the Diyala region where Ešnunna was located (Fuchs 2011: 304).

A second possibility is that Chogha Gavaneh was located within the independent kingdom of Namar (later Namri). One of the personal names attested at Chogha Gavaneh is Šu-Namar (Abdi and Beckman 2007: 55, ChG 19: rev. l. 17) and a letter sent by Pišenden, king of Turukku, to a king of Šušarra (mod. Tell Šemšara) whose name is not preserved, mentions Namar as a kingdom in the Zagros (Eidem and Læssøe 2001: 38, 143, letter 69, l. 32; Ziegler 2015: 27). The kingdom of Namar, which probably included the region of Sar-e Pol-e Zohāb (see: below), may therefore have been culturally Babylonian, even if it was situated on the Iranian plateau. The land of Namar (Namar) is first attested in the Early Dynastic List of Geographical Names (Frayne 1992: no. 237) and appears in an Old Akkadian text from Tell Suleimah (ancient Awal; Veenhof 2008: 102, no. 581) in the Hamrin valley (Kessler 1998: 91). Given that Chogha Gavaneh, is c. 140 km. east of Ḫāniḳīn, 108 km. east of Qaṣr-e Širīn and 34–35 km. east of Kerend-e Gharb, the evidence excavated there clearly implies that the boundary between the Assyro-Babylonian and Zagrosian cultural zones was well to the east of the boundary zone codified by the Safavid/Qajar-Ottoman treaties.

4 Kassite Narûs from Karintaš and Sar-E Pol-E Zohāb

Two Kassite narûs, recording land and income entitlements, have been found along the Khorasan Road. The earlier of the two dates to the

reign of Meli-Šipak (1181–1167 B.C.). A fragment of it, found at Susa, bears an inscription of the Middle Elamite king Šutruk-Nahhunte I (c. 1190–1155 B.C.) and records that it was seized at Karintaš (Scheil 1902). For nearly a century, the scholarly consensus has been that Kerend-e Gharb is the site of ancient Karintaš (Potts n.d. with earlier lit.). The presence of a Kassite narû there implies that the site was under Kassite rule and it is probably justified to infer that the region to the west of it, but east of Babylonia, was as well.

The second monument (Borger 1970) is a narû erected by Meli-Šipak's son, Marduk-apla-iddina (Merodach-Baladan) I (1166–1154 B.C.). Discovered in 1967 at Sar-e Pol-e Zohāb, it mentions the Kassite governor of Namar and Ḥalman, one Šitti-Marduk. It has long been recognized that Ḥalman is cognate with Ḥolwān, ancient Chalonitis, the area around Sar-e Pol-e Zohāb and Qaṣr-e Širīn. The discovery of the narû of Merodach-Baladan I at Sar-e Pol-e Zohab certainly implies that the area was under Kassite control. How far Namar and Ḥalman extended we do not know for certain. Nevertheless, like the Meli-Šipak narû fragment, this find implies that Kassite control extended at least as far east as Sar-e Pol-e Zohāb. Whether this represents a western contraction of the frontier from Kerend/Karintaš, between the reigns of Meli-Šipak and Merodach-Baladan I. We do not know. It is perfectly possible that Karintaš continued to be the easternmost known point of Kassite control at this time as well, but this cannot be confirmed. A further indication of even earlier Kassite control over Namar/Namri, dating to the reign of Nazi-Maruttaš (1308–1283 B.C.), is provided by a literary text (CBS 11014) which, although damaged, seems to record an endowment of beer, wine, honey, ghee and fruit from twelve 'cities of the land of Namri' for the 'pot-stand of Enlil' at Nippur (Fuchs 2011: 304; Frazer 2013: 207–208).

One indication that this entire region continued to be under Babylonian control at this time is afforded by yet another narû, found at Sippar (Abu Habba) in 1882, and erected in the name of Nebuchadnezzar I (1125–1104 B.C.), fourth king

of the Second Dynasty of Isin. Among the stipulations recorded in the text on this monument is exemption from taxation and confiscations by the king's representatives and their military contingent in Namar (King 1912: 30).

5   Neo-Assyrian Rock Reliefs

When Adad-nirari II (911–891 B.C.) campaigned against Lullubum and Zamua, he advanced 'as far as the passes of Namru' (Grayson 1991: 148, l. 24), presumably a reference to the Zagros Gates. The Assyrian hold over the region is confirmed in Assurnasirpal II's (883–859 B.C.) declaration that he 'regarded as people of my land (the inhabitants of the regions stretching) from the pass of Mount Kirruru to the land Gilzānu (and) from the pass of the city Babitu to the land Namru' (Grayson 1991: 309, l. 24). By the reign of Šalmaneser III (858–824 B.C.), however, Namru/Namri had regained its independence's in Šalmaneser's sixteenth year, for example, he engaged Marduk-mudammiq, 'king of the land Namri', in battle and claimed to have 'overwhelmed the land Namri' (Grayson 1996: 40, ll. iv 7–25; cf. Ponchia 2006: 215). In his stead, Šalmaneser 'appointed to the sovereignty over them Ianzû, a man of Bīt-Ḫanban (Grayson 1996: 67, ll. 93b–95). Again in his twenty-fourth year, however, Šalmaneser 'crossed the Lower Zab, crossed Mount Hašimur, (and) went down to the land Namri. Ianzû, king of the land Namri, took fright… and ran away to save his life' (Grayson 1996: 67, ll. 110b–114). In another text Šalmaneser boasts that he 'marched for a second time to the land Namri. I carried off Ianzû, king of the land Namri, together with his gods, booty from his land, (and) his palace property to my city Aššur' (Grayson 1996: 118, iii 1–2a). Obviously, Ianzû proved to be a less than faithful vassal of Assyria. Even after Ianzû's removal, Šalmaneser III found it necessary to undertake one more campaign against Namri, in his thirty-first year (Grayson 1996: 71, ll. 187). Nevertheless, by 814 B.C., however, Namri's participation as an ally of the Babylonian Marduk-balāṭsu-iqbi against Šamši-Adad V (823–811 B.C.) in the battle of

Dur-Papsukkal shows that it was independent of Assyria, and at least four more Assyrian campaigns were launched against it during the early eighth century (Kessler 1998: 92).

Further evidence of Assyrian aggression in the western Zagros is provided by three rock-reliefs and one stele discovered in situ (Alibaigi et al. 2012 with bibliog.). Strictly speaking, none of these pertain directly to the western Khorasan Road. The Najafehabad stele (Levine 1972), from the village of this name (probably ancient Kišesim; see: Radner 2013: 444) in the Asadabad valley, between Kangavar and Hamadan, while technically on the Khorasan Road, was discovered well to the east of the border zone under consideration here.

6   Conclusions

The Mesopotamian evidence just reviewed demonstrates conclusively those areas we tend to think of as belonging to the Iranian or Zagrosian cultural sphere—including Qasr-e Širīn, Sar-e Pol-e Zohāb and Kerend-e Gharb—were all, at different points in time, from the Old Babylonian to the Neo-Assyrian period, under strong Assyro-Babylonian cultural and/or political influence or control. Even if we exclude from this discussion the data on Simurrum and Lullubum, particularly the reliefs of Anubanini at Sar-e Pol-e Zohāb (possibly ancient Mount Batir; see: Al-Rawi 1994: 39) commemorating his conquests, as these may have been carved some distance from the center of Anubanini's actual base of operations, we have ample justification in asserting that the modern Iraq-Iran boundary, and its predecessor, the boundary zone demarcated by treaties going back to 1639, give misleading impression of where the frontier between the Assyro-Babylonian and Zagrosian worlds intersected with the Great Khorasan Road and its earlier incarnations. The general impression gained from a study of this material is that, from the Old Babylonian through the Isin II periods, the Zohāb region, as far east as Kerend, was markedly Babylonian in character, judging by anthroponymy (Chogha Gavaneh), calendrics (Chogha Gavaneh) and political allegiance (Kassite and Isin II narûs).

Repeated Assyrian attempts to subdue Namar/Namri thus appear not so much as an attempt to conquer new territories (though they may have been 'new' for the Assyrian empire) as efforts to reclaim a strategic region, commanding the high road to the Iranian plateau that had been, for at least a millennium, firmly within the Assyro-Babylonian cultural sphere.

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Scythian and Zoroastrian Earth Goddesses: A Comparative Study on Api and Ārmaiti

Yazdan Safaee

Abstract

There is a narrative in Herodotus' Histories that informs us of the customs, history and religion of the Scythians in which their gods are mentioned. Api, the Goddess of Earth, is one of these deities in Herodotus' narrative which the author will observe its details comprehensively in this article. On the one hand, Aməša Spəṇta Ārmaiti is related to the Earth in Zoroastrianism and has some features which, in its comparative sense, can be compared to the Scythian Goddess, Api. They both are the goddesses of earth and likewise are related to the water. They are also the daughters/wives of the great God in Scythian and Iranian pantheons, respectively. In the case of Api, one may doubt, for some terminological reasons, the accuracy of Herodotus' account. However, one should point out that archaeological excavations emphasises Herodotus' knowledge of the Scythian religion. Furthermore, there is a parallel account in the *Geography* of Strabo that could be used as a strong argument to confirm the reliability of Herodotus' narrative. On the other hand, Api and Ārmaiti are both associated with a river. This feature exists in Arámati, the Indian parallel of Ārmaiti. Very

well attested cultural and linguistic connections between Iranophone Scythians and Iranians could be measured as the last reason for this possibility that Scythian Api and Zoroastrian Ārmaiti are connected.

1 Ārmaiti and the Earth

Ārmaiti or Spəṇta Ārmaiti, Spandarmad in Middle Persian and Isfandārmaḏ in Persian, is one of the Aməša Spəṇtas (Boyce 1986: 413). The word ārmaiti is derived from the verb 'arə̄m man' which means thinking in correct measure, balanced thinking (Skjærvø 2002: 403).

Kellens translates it to '(ritual) fair-mindedness' (1987, 253) and in Boyce's opinion, Spəṇtā Ārmaiti means 'Holy Devotion' (1979, 22; for the meanings 'piety' or 'devotion' for Ārmaiti, see: Boyce 1986: 413). To Narten, she is 'Rechtgesinntheit' (1982, 1).

Although Duchesne-Guillemin believes Ārmaiti is Vohu Manah's daughter (1951: 30–31), this idea remains impossible because she is obviously Ahura Mazda's daughter (see: Kellens 1987: 255; Narten 1982: 63). As Skjærvø writes: *Ārmaiti is both Ahura Mazda's daughter and the*

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Earth, both in the Old Avestan texts and in the later Avestan texts, as well as in several other Old Iranian mythologies (2002: 404). Kellens thinks that Ārmaiti is an unquestionable entity (1987: 55) and Narten believes she is personified in Y 33.11 (1982: 42). There is a consensus that Ārmaiti is the Goddess of the Earth (for example, see: Daryaee 2002a: 290; Kellens 1987: 253; Skjærvø 2002: 400; Tafazzoli 1989: 189, 193; Narten 1982: 103; Boyce 1975: 204, 1979: 23). There is a connection between Ārmaiti and the Earth in Vīdēvdād 2.10.18 (Darmesteter 1880: 13, 15). Also, Narten points to the importance of Vīdēvdād 2.14 for this connection (1982: 125), this connection is even more obvious in another passage of Vīdēvdād (3.35; see: Narten 1982: 126). Interpreting Y 48.11 where Ārmaiti is mentioned and comparing it with Y 16.10, Narten finds a metaphor of earth and the same for Y 47.3 (1982: 110–2, 124–6). One can read in *Šahrestānīhā ī Ērānšahr,* 38:

> *The city of Zarang was first built by the accursed Frāsiyāk, the Tūranian, and established the miraculous Karkōy Fire there, and Manūčihr was (surrounded) in Padišxwargar, and (Frāsiyāk) asked* **Spandarmad as wife and Spandarmad mixed in the earth** *(spandarmad pad zanīh xwāst ud spandarmad andar ō zamīg), (he) destroyed the city and he extinguished the fire, and then Kay Husraw, the son of Siyāwaxš again built the city. And he again founded the Karkōy Fire, and Ardaxšīr, the son of Pābag finished the city* (Daryaee 2002b: 22, 27; also see: Tafazzoli 1989: 194–5; Stress is mine).

The connection between Spandarmad and the earth is well attested in several texts such as Bundahišn (26.83; Pakzad 2005: 306), Ayādgār ī Jāmāspīg (IV, 50–51; Tafazzoli 1989: 193), Selections of Zad-sparam (IV, 3; Gignoux and Tafazzoli 1993: 57), Ardā Vī rāz Nāmag (LXXII, LXXVI, XCVI; Gignoux 1984: 202, 204, 212). Among later texts, *Al-Āṯār al-bāqīa* attests this connection as well (*Al-Āṯār al-bāqīa,* 355).

Lincoln observes the concept of 'mother earth' in RV 10.18.10-13 (2014: 181, fn. 7). It seems that a connection between Ārmaiti and Arámati is generally accepted (West 2010: 13). Vedic Arámati who is equal to Avestan Ārmaiti

is connected to the Earth as well. (*Rig Veda* 7.42.2; see: Skjærvø 2002: 404; Duchesne-Guillemin 1962: 142; Molé 1965: 52).[1]

2 Scythians

The word Scythian generally has been used to lable various groups who lived from the Black Sea to southern Siberia and Central Asia. Scholars, repeatedly, stress on tribal variety in

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[1] One may argue that Ārmaiti is not dedicated only to Zoroastrian pantheon but it belongs to the Indo-Iranian shared past. Here it is useful to quote from Boyce who says: *Zoroaster's profoundly original concepts of the one Creator and of the six Aməša Spəntas grew harmoniously, it seems,out of the pagan Iranian religion and its observances,a noble development due to the religious and moral genius of the prophet himself, but one prepared for by the thoughts and worship of generations of his predecessors* (1975, 224).Zam is another Iranian divinity connected to the Earth (Narten 1982: 110). For example, in Bundahišn (26, 123; Pakzad 2005: 315), Zāmyād is mentioned as *mēnōg ī zamīg* which means 'Spirit of the Earth'. It seems there is a connection between Ārmaiti and Zamyād (Boyce 1975: 37, 207). In Buddhist texts in Tocharian the term ysamaśśandaa- is mentioned which reminds us of the Avestan root *zam- with śśandaa- (Avestan spənta-) which means 'world' (Bailey 1979: 345–6; cf Skjærvø 2002: 404, fn. 26). Ārmaiti could be well-known among Khotan Saka, since they have given her name 'Śśandrāmata' to Śrī Lakṣmī (Duchesne-Guillemin 1962: 283; Bailey 1935: 142). Apparently, Boyce doubts about Baily's opinion that the aforementioned term refers to Bactrian word *Zam śuantā ārmati (Boyce 1975: 78, 1983: 305–6). Ārmaiti has been consistently mentioned in other Iranian and non-Iranian attestations. She exists in sources in some other languages such as Elamite (in the Persepolis Fortification Archive), according to Razmjou's reading, she occurs in the form of AN/AŠiš-*pan-da-ra-mat-ti-iš* (Razmjou 2001) among Iranian deities occurring with a ceremony: 'lan' (Henkelman 2008: 234, fn. 513, 281). Old Persian *Ṛmāta-, reconstructed from the Elamite*ir-ma-at-tam* in PF 1857: 8 or ir-ma-tam in DB iii equal with the Avestan Ārmaiti-which in Old Persian could mean 'state' (Tavernier 2007: 447). Her name also reflects in form of Arramati in Babylonian archives in the Achaemenid period (Dandamayev 1992: 32). Armenians worshiped 'Spendaramet' as protector of the earth (Boyce 1979: 84). The comparison of Ārmaiti with a less popular Goddess named Tusnamaiti (Y 43.15) is not a probable one (see: Boyce 1975: 228). Boyce assumes that portray of 'Demeter' on the Parthian coins is a reflection of 'Spəntā Ārmaiti' (Boyce 1979: 82).

Scythia (e.g. see: Gavrilyuk 2007: 135 and also Yu 2014). Their settlements in southern Russia were limited between the Danube in the west and the Pamir mountains in the east (Shahbazi 1982: 189). Despite the wideness of settlements and tribal variety, using onomastics, Grousset argued that Scythians were united and close to Iranians (1938: 35). The name Saka has remained, among contemporary geographical names, in Sīstān and Saqqez (Rice 1957: 45). The historical evidence reveals the connection between Sīstān and Scythians (Isidore of Charax, *Parthian Stations,* 18).

Scythians are mentioned in classical sources repeatedly. Different documents have named them in various forms. Persians refer to them as 'Saka' and Indians as 'Chaka' (Grousset 1938: 35). Old Persian Saka- is Šakka *(šá-ak-qa)* in Elamite. Šakka is not only an ethnic designation but also an Iranian proper name *(šá-ak-qa)* attested in the Elamite documents from the sixth and fifth century B.C.; the part 'sak-' probably means 'to be strong' (Dandamayev 1992: 119, 161; for meaning of the word 'saka-', see: Lecoq 1997: 147–8). In the Assyrian inscriptions, Scythians are referred to as 'Ishguzai' (Cook 1985: 253; Philips 1972: 130; Hinds 2010: 15) and in Greek sources as 'Scyth' (one can refer to Herodotus, IV, 5, 76; V, 24, 27 and Diodorus Siculus, *The Historical Library,* II, 5; Stronk 2017: 94). Hesiod refers to Scythians as 'Mare Milking Scythians' (see: Hinds 2010: 14).

In his inscription in Naqsh-i Rustam, Darius I mentions three groups of Scythians: 'Sakā hau̯mavargā', 'Sakā tigraxau̯dā' and 'Sakā tayai̯ paradraya' (DNa, S3; Schmitt 2009: 102) which can be translated to 'Amyrgian Scythians', 'Scythian with pointed caps', and 'Scythians who are across the sea' (Kent 1953: 138). Duchesne-Guillemin corresponds 'Haumavarga' ('Ἀμύργιο' in Herodotus) with Avestan 'Haoma' (1962: 148). We also are aware of 'Sakā para sugdum' (Sakas beyond Sogdiana), while an Egyptian inscription speaks of Sakas of marshes (most probably 'distant') and Sakas of plains (Frye 1996: 81; For Sakā hau̯mavargā, see: Lecoq 1997: 139 and for Sakā tigraxau̯dā, see: Lecoq 1997, 149 and also Дьяконов, 1956:

251 who argues that they are Orthocorybantians in Herodotus, III, 92).

Additionally, Gershevitch identifies the Saka Haumavarga with the Turanians in the Avesta[2] (Gershevitch 1974: 46–54). Strabo also mentions the Tauric Scythia -Ταυρικῆς Σκυθίας- (Strabo, Geography, XII, 2, 3). In the Gāθās, one can read: *When he, with truth, rises at the praiseworthy relatives and descendants of Tūra, son of Friya, who furthered the herds of* **right- mindedness** *[= Ārmaiti] with zeal, the Wise Lord puts them together with good thought at (the reward) promised to support them* (Y 46.12; Humbach and Faiss 2010: 136; see also: West 2010: 127). Duchesne-Guillemin associates this mentioning with people of Tura who lived among Oxus and Jaxartes (Duchesne-Guillemin 1962: 142). Moreover, one can see the name of Friyāna among the Scythians which in Ol'viī's inscription appears in the Greek form with changing r to l, which comes before i, y comes in the from 'λιανοϛφ', the unique feature of Scythian on the Black Sea coastline (Абаев 1975: 2; Herzfeld 1968: 328).[3] Consequently, it is evident that the Avestan community was familiar with the Scythians. The language of ancient Scythians classifies as an Old Iranian language. Most researchers are on common ground about the Iranian nature of Scythians and their linguistic-ethnic relations with Medes and Persians (Mallory 1989: 48, 53). Scythians and Persians

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[2]Perhaps, one can recognise another Scythian reference in the Avesta. In Yt. 10.14, there is a place by the name of 'Iškata' (Gershevitch 1967: 81; cf. Gnoli 1989: 37, 44–6, 60–1). Interpreting Yt. 10.14, Gnoli mentions the geographical name of Iškata as one of the Aryan countries in the Avesta (Gnoli 1989: 36–7) which he, himself, has compared with the well-known lands in the Vīdēvdād and in his opinion there is a correspondence between this name and Airiiana Vaējah- (Gnoli 1989: 43–7); As it seems plausible, Iškata is an Iranian land (Gnoli 1989: 60–1; cf Gershevitch 1967: 174–5) which is probably a reference to Scythians.

[3]The fire of Vohu Friiāna in Y 17.11 (Mills 1887: 258), and the fire of Hufryān in Bundahišn (18.1; Pakzad 2005: 228; Molé 1965: 79; see also: Dēnkard, VII, 30, Rashed-Mohassel 2010: 202) are mentioned. There is a book in middle Persian as Mādayān ī Yōšt ī Fryān (Duchesne-Guillemin 1962: 61). Two survivors of his family are also mentioned in the Avesta (see: Boyce 1975: 107–8).

communicated in languages which were closely tied to each other and were comprehensible without the need of translation (Cotterell 2004: 61). With the knowledge one has on the Scythian language, we are well-aware of this point that there are connections between their language and other Iranian languages like Avestan (Lubotsky 2002: 189). The close interrelatedness on economic-linguistic-reflective cultures of Medes and Persians with Scythians is confirmed in Greco-Roman sources, as well (Strabo, *Geography*, 15.2, 15.8). There are also historical narratives which indicate the historical connections between Northern Scythians and Southern Iranians.[4]

3   Scythian Gods

Considering the paucity information available to us on this issue, Herodotus says on Scythian Gods, *The Gods whom they propitiate by worship are these only:—Hestia most of all, then Zeus and the Earth, supposing that Earth is the wife of Zeus …* (IV, 59). He also mentions that Earth has been called 'Api', Aπί, by the Scythians (Ibid).

Based on this narrative, Boyce has commented on the Scythian beliefs as follows: 'their faith was essentially the general Old Iranian one' (Boyce 1982: 40). The validity and authenticity of this information on the Scythian Goddess of earth could be understood through studies and discussions on other Scythian deities in this particular narrative. If this information on other

Scythians deities were to correspond with our other findings, then one might rely on the given knowledge that Herodotus mentions on the Scythian Goddess of earth.

Scythian deities quoted in Herodotus (IV, 59) divide into three ranks. Tabiti (equivalent Greek: 'Hestia') is in the first rank. The second rank includes 'Papayus' (Greek form: 'Zeus'), 'Api', (Greek word: 'Gaia'), and the third rank includes 'Oetosyrus' or 'Goetosyrus' (equivalent Greek: 'Apollo'), 'Artimpasa' or 'Argimpasa (Greek word: 'Aphrodite Urania') and two other deities that their Scythians names are not known. However, they have been recognised as the 'Herakles' and 'Ares'. It is possible that first unknown deity is likely the same 'Targitaus' in a very ancient Scythian myth (Raevskii 1987; see also: Humbach and Faiss 2012: 4). We need to mention that there may be a connection between the name of 'Goetosyrus' with Iranian 'Miθra' and 'Arəduui' (Herzfeld 1947: 516). Due to Targitaus' unparalleled importance in Scythian myths, we quote Herodotus' narrative on him:

Now the Scythians say that their nation is the youngest of all nations, and that this came to pass as follows:—The first man who ever existed in this region, which then was desert, was one named Targitaos: and of this Targitaos they say, though I do not believe it for my part, however they say the parents were Zeus and the daughter of the river Borysthenes. Targitaos, they report, was produced from some such origin as this, and of him were begotten three sons, Lipoxaïs and Arpoxaïs and the youngest Colaxaïs. In the reign of these there came down from heaven certain things wrought of gold, a plough, a yoke, a battle-axe, and a cup, and fell in the Scythian land: and first the eldest saw and came near them, desiring to take them, but the gold blazed with fire when he approached it: then when he had gone away from it, the second approached, and again it did the same thing. These then the gold repelled by blazing with fire; but when the third and youngest came up to it, the flame was quenched, and he carried them to his own house. The elder brothers then, acknowledging the significance of this thing, delivered the whole of the kingly power to the youngest. (IV, 5).

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[4]Probably, one of the most significant of those is Herodotus' narrative which reports that when Cyaxares was in war with the Assyrians, Scythian troops under command of their king Madyas, son of Protohyas, attacked his army and could defeat them and had the 28 year predominance in Asia until Cyaxares killed them in a feast by deception (I, 103–106; see: Sulimirski 1985: 150–3). It is likely that this narrative on the border of authority and domination of Scythians on Medes has been exaggerated (Brown 1988: 82; cf. Дьяконов 1956: 19). Nevertheless, this very narrative demonstrates that there were connections between the Scythians and western Iranian people in earlier periods of history.

Three sons of 'Targitaus' could be interpreted as the motivation of dividing universe into three parts (Heaven, Earth, and Underworld) and corresponding to Indo-European tradition, Scythian society was divided into three: warriors, priests, and agriculturalists (Raevskii 1987). Plus, apparently, there is some sort of a trial 'Var' with fire in this narrative. Furthermore, the specific similarities between the text and the story of Fereydūn (Avestan Θraētaona and Middle Persian Frēdōn) and his sons in the 'Shahnameh' (Book of Kings) is undeniable (Раевский 2006, 51, 95–7, 107–12). There are clear, powerful Indo-European characteristics in the Scythian foundation legend which gives more credit to Herodotus' narrative and shows that it is based on a local tradition. Additionally, the element-xaïs at the end of three brothers' names is etymologically related to xšāya in the Old Persian word for 'king' (Kim 2010, 119) or better 'ruler' (For a systematic analysis of various versions of Scythian genesis legend, see: Раевский 2006, 35–112).

Most of the Scythian deities are related to the Indo-Iranian tradition. Tabiti, the great Goddess of fire and hearth, is related to the Indo-Iranian concept of fire as its original basis (Raevskii 1987). The importance of this very great status has been confirmed when a Scythian king, during the battle with Darius, mentions the Greek parallel, Hestia, to Tabiti as the queen (Herodotus, IV, 127).[5] The name of this Goddess should be derived of the Iranian root *tap, the verb 'Heat'. Tapatī- is considered as the daughter of God of the Sun in ancient India, therefore this origin could be accurate for naming this specific divinity (Rezai Baghbidi 2011, 68; For further information on Tabiti, see: Абаев 1962, 448–9; Ustinova 1999, 69–74; Раевский 2006, 113–137).

Amongst these Scythian Gods, 'Artimpasa' if one can accept this reading has been assumed as the same Iranian 'Arti' (Aši), goddess of wealth and reward, which corresponds to 'Aphrodite'. 'Ares', equates with a Scythian God, obviously is the God of war which could correspond to the Iranian God 'Vərəθraγna' (Raevskii 1987; see also: Humbach and Faiss 2012: 5; for Artimpasa see also: Абаев 1962: 449–50; Ustinova 1999: 75–8). Rezai Baghbidi (2011: 71) has also suggested 'Ares' as the offspring of the Goddess Tabiti. The significance of Oetosyrus is still in an absolute vagueness (Raevskii 1987).[6]

When Darius I says in Behistun inscription that the Scythians did not worship 'Ahura Mazda' (S75, Schmitt 2009: 91), it should be understood and questioned in political basis of the Behistun inscription, so one wonders if the Scythians had not had their own challenges with Darius, would this statement still have been mentioned? Gignoux considers the existence of shamanic beliefs among Scythian groups who lived between Tashkent and the Ferghana valley (Gignoux 2001: 70–1). There is, in any case, no reason to make a marked distinction between the religious mores of Scythians and Iranians.[7]

It has been said that the analysis of the accuracy of Herodotus' narrative on Scythian religion will be the touchstone of the accuracy of his details on Api. Nowadays, other details of his narrative on Scythians have been confirmed. Scythian tombs, bones and remains of kings, men, women, and sacrificed horses are found as Herodotus has described (Rishter 1931: 46). On horses, one can refer to the recent excavation in Khorramabad graveyard in Ardabil in north-

[5]Herodotus also utilises the word 'βασίλεια' for some other people such as Thomyris (I, 21, also see: Brosius 1996: 20).

[6]For etymological analysis of the divine names in this narrative, see: Humbach and Faiss 2012: 4–8.

[7]In this regard, One can add two remarks: 1-Strabo says the following about a Scythian tradition: *And they consider it the best kind of death when they are old to be chopped up with the flesh of cattle and eaten mixed up with that flesh* (Strabo, *Geography*, XI, 8, 6). That statement is comparable with his own report on Sogdians and Bactrians (Strabo, *Geography*, XI, 11, 3); this very matter can indicate that how much of the Scythian religious practices so resemble Iranian mores and traditions. 2-As Lubotsky indicates that *farnah- goes back to PIr. *parnah- and is cognate to Skt. párīṇas-, which is not only the same morphological formation but has the same range of meanings' (Lubotsky 2002: 193), existence of the concept of farnah- among the Scythians is probable.

western Iran (Rezaloo and Ayramloo 2016). Furthermore, Abaev has demonstrated that the number of Scythian deities in Herodotus' narrative has a parallel among Allans as well as their descendants, namely Ossetians (Абаев 1962: 445–7). One should point out that the authenticity of Scythian deities' names has been generally accepted; e.g. see: Бессонова 1983: 25. Concerning these details, I think that, Herodotus narrates quite accurate information on Scythian deities which seems to lead one to rely on Herodotus' statements regarding 'Api' being 'Goddess of Earth'.

4   Ārmaiti and Api: The Wives of Great God

The accuracy of this hypothesis that 'Ārmaiti' and 'Api' are both the Goddesses of 'Earth' will not be the only reason for associating these two with each other. In the extant Pahlavi literature, 'Spandarmad' is so close to 'Ohrmazd' (János 2005: 305) and one may say that she is the counterpart of heaven ∼ 'Good Thought' (Skjærvø 2002: 404). In old Avesta, she is considered to be one of the daughters of Ahura Mazda (Y 47.3; Humbach and Faiss 2010: 140). In Y 31.9 the connection of Ārmaiti and Mazda is manifested (*Right-mindedness was with you*; see: Humbach and Faiss, 2010: 86). The connection of 'Earth' and 'Woman' has been mentioned specifically in Y 38.1, in which the idea of relation between Earth and Women has spoken broadly along with emphasizing on Mazda's Women (*We celebrate this earth which bears us, along with (its) women, and (we celebrate) your women, worth choosing in accordance with truth, those we celebrate, O Wise Lord*; see: Humbach and Faiss 2010: 108; Narten 1982: 67–8). In the 8th chapter of Pahlavi Riwāyat accompanying the Dādestān ī Dēnīg, the text which was written in praise of 'khwēdōdāh',

'Hormozd', in response to 'Zoroaster', presents Spandarmad as his daughter, his Queen of Paradise, and the Mother of Creation (János 2005: 305–6; Shaked 1994: 62). In fact, in this very text, Spandarmad who is considered as the daughter of 'Ahura Mazda' accepts the role of his wife too which this matrimonial relationship (incest) *per se* has been questioned by 'Zoroaster'. Nowadays, the researchers consider 'Ārmaiti' as the daughter and wife of 'Ahura Mazda' (Skjærvø 2005: 16). In the Avesta, 'Aši' and 'Daēnā' are the daughters of 'Ahura Mazda' and 'Ārmaiti'; interestingly 'Sroaša', 'Rašn', and 'Miθra' are their siblings (Yt. 17. 15–16; Darmesteter 1882: 274).

There is also a report which says: *The Derbices worship Mother Earth* (Strabo, *Geography*, XI, 11, 11). One may know that among 'Derbices' were some tribes by the hands of whom, Ctesias believes, Cyrus was killed (F6, 7, Llewellyn-Jones and Robson 2010: 173). In fact, Herodotus says they were Scythian Massagetae who killed Cyrus (I, 201–215; for a war between Cyrus and the Scythians, see Strabo, XI. 8. 5–6) and that Ctesias, elsewhere, considers Derbices as eastern tribes (F1b, Llewellyn-Jones and Robson 2010: 115) and also neighbouring the Hyrcanians (F43, Llewellyn-Jones and Robson 2010: 218). One can conclude that Derbices were generally considered as Scythians (see: also Frye 1996: 82). Needless to say, Scythians were a large number of mobile people who were separated and spread in north-eastern Iran. Therefore, Strabo's report based on worshiping the 'Mother Earth' by Derbices is extremely important.

Herodotus' narrative (see: also Zgusta 1953: 271) explicitly presents the 'Earth', among Scythians, as the wife of 'Papayus' (see: also Раевский 2006: 62). It seems that not only 'Ārmaiti' and 'Api' are both Goddesses of 'Earth' but also are the wives of great God, respectively, 'Mazda' and 'Papayus' which one

cannot consider accidental; meanwhile it could also be interpreted as the connection between the Goddess of earth of Scythians and that of Iranians. Moreover, one should hold in mind the language and cultural closeness of Scythians and Iranians, which has been broadly explained.

5   Api and Ārmaiti: Earth and Water

However, putting aside the idea of connection of Api and the Earth, it seems there is some sort of correlation between the name of the Goddess and water since this word has been derived from the Iranian word 'ăp-' which means 'water' (cf. Raevskii 1987). According to this point, some researchers believe that Herodotus mistakenly understood 'Api' as Goddess of earth, but in fact, it should have been Goddess of water. Humbach, among others, edits Herodotus' statement to conclude the arbitrary results (Humbach and Faiss 2012: 7). Since Herodotus says (IV, 5) Scythians are the children of 'Zeus' and the daughter of Borysthenes' river, Lincoln concludes that this daughter of the river would be the same 'Api' (Lincoln 2014: 185). It is probably because of the former Herodotus' narrative which considers 'Api' and 'Papayus' as a couple. For some critical remarks on the assumed connection between the river and Api see: Ustinova 1999: 91–93, Shenkar 2014: 141–412. There is also an alternative which considers Api as a childish word of endearment meaning "mommy" (Абаев 1962: 449; Ustinova 1999: 74), but this hypothesis does not seem to be possible.

The 'Papayus' and 'Api' couple portrays the concept of marriage held between 'Heaven' and 'Earth' as the hypothesis of creation of the world which was common among Indo-Iranians. From their union, 'Targitaus', the ancestor of the Scythians, was born. His mythological birth could be interpreted as middle sphere of the cosmos between the heavenly and chthonic worlds (Raevskii 1987).

The Apasiacae people lived between the Oxus and Tanais rivers (Polybius 10.48.1; Walbank 1967: 261–2). It seems that Strabo refers to the

same geographic region when he mentions them (Strabo, *Geography* 11.8.8). Arrian reports that Alexander faces them around the same region, after killing Bessus (Arrian, *Anabasis Alexandr,* IV, 1.1). Quintus Curtius says: The Scythian Abii had been free since Cyrus death but were now prepared to submit to Alexander (Quintus Curtius Rufus, *The History of Alexander*, VII, 6.11; for more remarks on Arrian's and Quintus Curtius' narratives see: Иванчик 1999: 41–3). Tomaschek considers this word connected with 'Āpa   Çakā'/'Wasser-Saken'   (=Water-sakai) (1894, col. 2670).[8] The very interesting issue is that the reflection of this name exists as a proper name.[9]

'Spandarmad' has its own role in Āraš's arrow firing epic. The connection of 'Ārmaiti' with 'Water' is being unfolded from relevant narratives to this very epic story: *L'apparition de la religion par Spandarmad eut lieu à l'époque où Frāsyāb écarta les eaux de l'Iran; pour ramener les eaux, (Spandarmad) sous la form d'une jeune fille, dans la maison Manuščihr, souverain de l'Iran qui avait débattu avec le non-Iran, se rendit ainsi visible.* (*Selections of Zadspram*, IV, 4; Gignoux and Tafazzoli 1993: 57; also: Tafazzoli 1989: 193). Undoubtedly, Spandarmad's measures for bringing the water again is a strong evidence for the connection between 'Ārmaiti'and 'Water'. One should note that in the Yt. 8.7 (hymn to Tištriia-, Sirius) there is a

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[8]Schmitt believes that the suggested origin of '*Āpa-sakā' which means 'Water-Sakas' is incompatible with phonetic considerations; Furthermore, the suggested origin of '*Āpa-šyā-ka' which means 'rejoicing at water' is contradicted with word formation and semantics (Schmitt 1986).

[9]Mentioning '*Abisauka-' could be interesting since it is an Iranian name which has remained as the 'A-be-e- su-uk-ku' in Babylonian archives (Tavernier 2007: 99). Meanwhile, Tavernier reconstructs an Iranian form for 'Ap-pi-šu-ka' (mentioned in PF 57: 4–5) as '*Abisōka', probably derived from '*Abi-sauka-', which means 'Shining' (Tavernier 2007: 99; see also: Dandamayev 1992: 25; For more names including the element 'Api' see: Tavernier 2007: 99–100, 108–9, 465, 475 and for Scythian personal name 'Abaris' see: Boyce and Grenet 1991: 501; see also: Zgusta 1953: 270–1).

connection between 'Waters' and 'Tištriia-' (Panaino 1990: 33). The role of water in supporting Āraš's arrow alongside with other Spandarmad's involvements in myth of 'Āraš the Archer' for bringing the water is again significant.[10]

From the terminology of the Scythians' Earth Goddess, we know that 'Api' is also connected with 'Water' (Humbach and Faiss 2012: 7). It has been mentioned in the Bundahišn that Ohrmazd creates the earth from water (1a.2; Pakzad 2005: 26). In another statement, 'Ābān' has been considered as the partner and companion of 'Ārmaiti', the part which connects 'Spendarmad' to the earth (3.20, Pakzad 2005: 50). There is another narrative in which Bīrūnī says: *(month) of Ispandārmajī (= Spandarmad): The 4th day called Xiž … and there is a feast called Wakhšāngām in the 10th day and Wakhš is the name of an angel who watches over all waters, particularly over the river Oxus…* (al-Āt̲ār al-bāqīa, 367–8). This passage, which is about the Zoroastrian calendar of the Chorasmians (Boyce and Grenet 1991: 179), obviously connects Ārmaiti with Vaxš river. Similarly, Duchesne-Guillemin believes that there is coupling between vedic Arámati and 'Déesse-fleuve' (Duchesne-Guillemin 1951: 26).

While discussing about Api, Bessonova draws attention to the closeness between earth and water in the Indo-European tradition (Бессонова 1983: 36). Considering this point, Ustinova concludes that Herodotus' interpretation of Api as Earth does not contradict with its etymology (Ustinova 1999: 74). Raevskii believes that the terrestrial and aquatic origins were personified in the Scythian religion in one character (Раевский 2006: 66).

6 Conclusion

Concerning the attestations and agreements among researchers, it is well known that Ārmaiti is the Goddess of earth. Her Indian counterpart is also directly connected with Earth. Ārmaiti who has her origin in an Indo-Iranian background is also the wife of the great God in Zoroastrian religion. Scythians are considered close to Iranians with consensus among the researchers. The Avestan evidence substantiates the presence of Scythians and what is remained from Scythian language shows that it was an Iranian language. Herodotus gives some details on Scythian religion which have been confirmed both by the archaeological investigations and religious studies. Therefore, one can say that, his details on Api are also affirmable, especially after considering the Strabo's report on worshiping the mother earth attested among Scythian tribes. Similar to Ārmaiti, Api in Herodotus' report, is considered both as the Goddess of earth and the wife of the great God. Api, in another report, is connected with a river. Similarly, Bīrūnī has a report that connects Ārmaiti with Vaxš river in Central Asia. Ārmaiti's Indian counterpart, Arámati, is also connected with a river. On one hand, the linguistic studies support the connection between Api and water and on the other hand there are some other reasons and evidence that point to connection between Ārmaiti and water. The name of the Scythian tribe 'Apasiakai', certified in attestations from Achaemenid times, indicates the crucial role of Api among Scythians. Plus, both earth and water, themselves, separately from their Goddesses, are connected in Bundahišn, an important text. Concerning the reflection of Ārmaiti in various texts, then it is possible that there should be a parallel for her among ancient Scythians. Especially, when there is a possible reflection of Ārmaiti in Khotan Saka.

Accordingly, having the Ārmaiti and Api as the Goddesses of earth, and considering them both as the wives of great Iranian and Scythian Gods, their connection with 'water', linguistic relevancies, and common grounds of history and culture among Iranians and Scythians, one can

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[10]One should point out that de Menasce has studied the probable connection between 'Anāhita' and 'Ārmaiti' (Menasce 1947: 13-5), but Shaked has rejected such a probability (Shaked 1994: 97). Nevertheless, one should agree with Boyce when she says: *For the needs of the earth Spǝṇta Ārmaiti receives help from the Waters, Āpas, and the divinities of water, Arǝdvī Sūrā and the high Lord, *Vouruna Apąm Napāt.* (Boyce 1975: 267).

claim that there is a connection and closeness between 'Api', the Scythian goddess of the earth, and the Zoroastrian goddess of the erath, 'Ārmaiti'; the connection which is not limited to being Goddess of earth but also relates to their connection with water.

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Elamites' Fear of the Underworld Judgment According to Elamite Texts

Maryam Dara

Abstract

Death and what awaits one's soul afterwards have always been significant in antiquity, giving rise to different beliefs. Some groups of people believed that their souls would be accompanied or even judged by some deities in the underworld according to their deeds. Elamite Inšušinak is among these supreme deities. Inšušinak and judgment in the underworld has yet to be studied and this paper focuses on whether the Elamites feared Inšušinak's underworld judgment. It is possible that Inšušinak held an important position as his titles, "The King's Supporter", "Great God", "Great Supporter", "Our City's Supporter", "My God", "My King", "My Ancestor", "Susa Supporter", and "Kings' God" indicate. He was also one of the supreme gods in the Elamite trinity of deities and was even related to the treaty, oath, and witness. Additionally, Inšušinak was the "Deity of the Deceased and Graves", and his assistants in the underworld were Išmekarab and Lagamal. The Elamites may have indeed feared Inšušinak, thereby placing him in the position of judge of the underworld. While the significance of his role as an underworld deity and judge of souls is not directly referred to in Elamite texts, but the pieces of evidence are as one can assume that the fear of soul judgment was the reason to bestow this crucial position to this supreme deity; his judgment was dreaded by them accordingly.

1 Introduction

The belief about what awaits a soul in the afterlife, life after death, and travel to the underworld are among challenging features of the antiquity. Sometimes, people suspected that their souls would be judged in the underworld, while others believed in the rise and judgment of body and soul. Some deities judged the souls of the deceased in accordance with their prior deeds, and it is possible that the judgment and the judge were more important than the judgment's

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result itself.[1] In antiquity, the afterlife was usually believed to be under the material world (Black and Green 1992: 58). Sumerians believed that the underworld was dark and dreadful (Bienkowski and Millard 2000: 88). Although Ancient Sumerian and Assyrian texts have been discovered regarding afterlife beliefs (Penglase 1995: 194), less Babylonian evidence exists about the soul's judgment (Kleveta 1949: 384).

The question for people in antiquity was about the underworld events and what awaited them in that world. Accordingly, texts such as *Ardāvir-āfnāmag* (Gignoux 2003), Ardāvirāf's journey to the afterlife, and his visit to the heaven and hell were narrated. Death was of particular significance and a frightening reality for some people. Supreme deities judged souls in the underworld, such as the Egyptian God, Osiris (Wilkinson 2003: 62). In Sumer, the underworld was mystic and dark (Penglase 1995: 192); in Mesopotamia, individuals entered the underworld through tombs, mountains, and treeless forests. Nergal and Erškigal, the queen and king of the underworld, ruled over the afterlife. The deceased had to pass the plains of the demons, and then the gate's guard, Bidu, would have to let him pass through seven gates (Tavernier 2013: 479–480).

Only limited evidence exists about the Elamites' religion and beliefs about the underworld. Some scholars have published work on Inšušinak and his underworld judgment. To fill this gap, this paper focuses on the role of Inšušinak as the judge of souls in the afterlife and the Elamites' fear of this judgment according to Elamite texts. One can safely assume that the Elamites feared their souls' judgment as a supreme deity, Inšušinak, was the judge. In other words, it is possible that soul's judgment was of significant importance for them to put it in the hands of a supreme god.

2   Elamite Religion

The Elamite's reign in south-west Iran coincided with the Sumer civilization in Mesopotamia. The Elamites affected regions as far as Central Zagros, the Persian Gulf shores, Kerman, Sistan, Khorasan, and Central Asia both politically and culturally (Potts 2006: 1, 13). We are informed of their presence through pieces of evidence, e. g, ceramics, clay figurines, seals and their impressions, weapons, vessels, bass-reliefs, stone and mud tablets, mud brick inscriptions, stelae, and statues (Potts 2012: 50). There never was a religious unity in Elam and there were always deities from Elam, Anšan, and elsewhere praised in their pantheon (Majidzadeh 2007: 50, 56). Although the Elamite religion is ambiguous, it is possible to recognize its basic beliefs through these pieces of evidence.

The Elamite religion shares similarities as well as differences from the Mesopotamian system of belief. Additionally, Elamites believed in deities with thunder, fertility, moon, triumph, strength, scribes, destiny, sun, underworld, love, earth, water, mountain, mother-goddess, weather, rain, fire, life, and guardian functions (Sarraf 2008: 137). Some deities were worshiped all through the Elamite civilization, such as Inšušinak, Pinikir, Humban (Great God). Many of them, however, were praised for a specific period (Vallat 1998: 336–337). In the meantime, the supreme deities grouping in the trinity were commonly praised but differed in various parts of Elam; the trinity of Humban and Inšušinak and Kiririša is the first instance. Inšušinak, along with Ea (or Enki) and Enzag, had shaped another trinity (Black and Green 1992: 66). Inšušinak, Išmekarab, and Lagamal will be discussed further in the following sections.

3   Inšušinak

Elamite in-šu-ši-na-ak was the national deity of Susa (Hinz 1976) and was praised throughout the political history of Elam (König 1977; Hinz 1976). In the Hita inscription or Naram-Sin treaty, he was in the 6th position of the 37

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[1]This author appreciates the helps of Dr. Kamyar Abdi throughout the course of this study and during the writing of this article.

deities, but soon he earned the second position after Humban. He was favored first in Susa and them in all the regions of Elam (Sarraf 2008: 72; Hinz 2008: 87). He became the favorite god of the king and the nation (Koch, 2003: 41), but he never ranked in the first position. His place was primarily after Pinikir, Humban, and Kiririša (Hinz 1976) and never became the most supreme deity (Sarraf 2008: 69). According to Majidzadeh (2007: 58), Inšušinak's promotion in the Elamites' belief was political, but ritually Humban was pioneer.

Inšušinak was a Triumph Deity (Hinz 1993: 669) and people requested his support during times of war. He was almost always the "King's Supporter Deity" and he was also, similar to Humban, the "Great Deity" and the "Great Supporter". Inšušinak was also called "Our City Supporter", "My God", "My King", "My Ancestor", "Susa Supporter", and the "King's Deity" (Majidzadeh 2007: 58). He was "The Father of The Weak People" and kings called him "My God" and "King of Gods." Elamite kings called themselves "Inšušinak's favorite servant". His gained even more titles during the Šilhak-Inšušinak era. He was also given the title "Supporter Deity of Sky and Earth Gods" in eighth century B.C.E (Hinz 1976; ibid. 2008: 56). The legitimacy of kings had to be approved by Inšušinak Majidzadeh (2007: 58). While it appears that he was given most praise in the time of Untaš-Napiriša (Sarraf 2008: 72), he was still, however, respected until the end of Achaemenid Empire (Lake 2010: 82).

Most of the Elamite kings mentioned Inšušinak in their inscriptions: Hita, Puzur-Inšušinak, Siwe-Palar–Huhpak, Tepti-Ahar, Humban-Numena, Untaš- Napiriša, Šutruk-Nahunta I, Kutir-Nahunta, Šilhak-Inšušinak I, Hutuluduš-Inšušinak, Šutruk-Nahunta II, Halutuš-Inšušinak, Tepti-Humban-Inšušinak and Atahamiti-Inšušinak (König 1977). "Inšušinak was a mystery deity, lived in a secret place, where nobody could see what his divine essence could do", announced Ašur-Banipal, the conqueror of Elam, in his attack on Susa (Hinz 2008: 56). Other kings mentioned him as well. Puzur-Inšušinak has mentioned him in his constructions

(André-Salvini and Salvini 1989: 65), and ordered his orchestra to play music in front of Inšušinak's temple gates and to sacrifice (Hinz 1969: 68). On a tablet from Siwe-Palar–Huhpak, Inšušinak's help had been requested (Boda and Novotny 2010: 485), and the King referred to Inšušinak as the Susa Deity who deserved animal sacrifices on a clay tablet (König 1977: 34, 3A + B, Sects. 1–4). "Inšušinak has bestowed the kingship of Susa and Anšan to me," said Humban-Numena (Potts 2006: 326). Untaš-Napiriša offered this deity a stela (Harper et al. 1993: 10), while Šutruk-Nahunta announced his brick offering to this deity on a stone tablet from Susa (Boda and Novotny 2010: 499) and mentioned a stela dedication to Inšušinak and Balippiti on a stela from Susa (König 1977: 74–75, Sect. 68). There are brick inscriptions, stelae, and other inscriptions dedicated to Inšušinak by Šutruk-Nahunta (ibid. 71, 17, Sect. 3), who also claimed that he had taken a stela from another king by Inšušinak's order (ibid. 74, 20, Sect. 3) who had bestowed health on the king in return (ibid. 75, 20, Sect. 7). Kutir-Nahunta placed baked bricks in Inšušinak's temple (Potts 2006: 367) and called himself "Inšušinak's favorite servant," as this deity would protect his constructions (König 1977: 84, 30, Sect. 1). Additionally, there is a different inscription from Šilhak-Inšušinak I near Choghazanbil on which the king request help from Napiriša[2] and Inšušinak (Ganjavi 2005: 62). There is a bronze model from Susa called Sit-Šamši and brick inscriptions and pillars and stelae from Šilhak-Inšušinak mentioning Inšušinak (Hinz 1964: 23). This king was most interested in Inšušinak's cult and many of his inscriptions are offered to this deity (Hinz 2008: 149). Šilhak-Inšušinak has called himself as Inšušinak's servant on a brick inscription in the Inšušinak temple in Susa (König 1977: 86, 34, Sect. 1) and he praised this deity as the "Great God", "God of Gods' Citadel", "The Supporter God", and "The Creator

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[2]Napiriša and Inšušinak were used instead of each other and sometimes Napiriša was written as DINGIR. GAL, The Great God, and was read as Inšušinak in Susa (de Miroschedji 1980, 1981: 25).

God" (ibid. 96, 44a-b). Šutruk-Nahunta II has called himself Inšušinak's servant, claiming it made him strong on a clay tablet from Susa (Sarraf 2008: 70). Tepti-Humban-Inšušinak had offered a statue to Inšušinak (ibid. 169, 79). A ceremonial scene from Atahamiti-Inšušinak has an inscription with this king calling himself Inšušinak's servant on a bass-relief from Susa (ibid. 26, 56, 87).

Inšušinak has played a great role in curses written in Elamite inscriptions. For instance Untaš-Napiriša cursed anyone who damaged his construction on an inscription in Choghazanbil, so that they would be killed by Humabn, Inšušinak and Kiririša (Hinz 2008: 132–133). Puzur-Inšušinak guaranteed the safety of his statue with the curse of Inšušinak, Nahunta, Nergal (Majidzadeh 2007: 54). He requested the help of Inšušinak and other deities to ensure the safety of his monuments (Cameron 2002: 33). Napirasu's statue from Ninhursag temple of Susa (Harper et al. 1993: 132) has a curse of Inšušinak and other deities as well (König 1977: 69–71).

4   The Judgment of Inšušinak in the Underworld

There were deities who were worshiped in Elam due to their role in giving and taking lives and escorting the soul to the afterlife (Vallat 1998: 339). As this paper mentioned above, there are few pieces of evidence regarding the Elamites' belief in the afterlife, but the underworld in Elamite beliefs seems more bearable than Mesopotamia. Death may have been significant Elam and three deities, including Inšušinak and his two assistants Išmekarab and Lagamal, were more revered although there were other deities associated with the death cult (Vallat 1998: 339). These two recent deities were believed to escort souls to Inšušinak for judgment (Hinz 1962: 39). Išmekarab and Lagamal met souls in hell and took them to Inšušinak for the final verdict (idem. 1964: 39).[3]

Vallat (1998: 339) suggests that Kiririša, Upurkupak and perhaps even Ruhurater, the Sun and Treaty Deity, and Tepti could be related to the death cult in Elam. Grillot-Susini (2001: 141) suspects that Napiriša, Kiririša and Sushila may also be related to the underworld, and adds Kiririša to the trinity of Inšušinak, Išmekarab and Lagamal. Tavernier (2013: 482) commented that Humban and Napiriša were linked to the afterlife as well. It is possible that Inšušinak was not an underworld deity in every region of Elam. He may have been the master of underworld in Susa, but other deities likely ruled over the afterlife in other cities, such as Kiririša in Lian (Boushehr) and Upurkupak in Choghapahn (Stolper and Wright 1990: 158–161).

Death was the gate to the underworld in Elam and some real gates were constructed in Elam that may have been recognized as the symbol of the entrance to the underworld. Sometimes, Kiririša was called "Lady of life, who is in charge of the gates and worshipers", and other deities such as Inšušinak, Išmekarab, Lagamal and Napiriša, corresponding to the underworld, were the owners of such gates (Vallat 1998: 340).

Grillot-Susini (2001: 141) also links Inšušinak, Išmekarab, Lagamal and Kiririša with burial rites, but (Tavernier 2013: 474, 473) could not find enough proof for this claim. Grillot-Susini (2001: 144) argues that Zigurat is associated with the afterlife and is in close connection with the burial. The deceased introduced himself to Inšušinak and his soul destiny became were judged by a clear. This scene was depicted on some seals as "the introduction scene" (Vallat 1998: 339).[4] Elamites believed that souls were judged by a scale (Gropp 1993: 14) and that they

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[3]The cooperation of deities in soul judgment is also observed in other ancient beliefs. 420 judges were believed to assist Osiris with judging souls in Egypt

(Kleveta 1949: 380). Mesopotamia's Nanna-suen or sin was also an underworld judge. Šamaš, the Sun Deity, was the judge of material world (Penglase 1995: 193) and Anunakis were seven gods of the deceased and were present at the judgment of souls (Kleveta 1949: 378). The Baylonians offered sacrifices to these seven Gods to prevent diseases (Penglase 1995: 193).

[4]Additionally, some extraordinary yet normal sized clay heads were found close to the deceased's head in graves of Susa and Haftteppe. Accordingly, Álvarez-Mon (2005: 114, 121), with respect to a few pieces of evidence, safely

were guided to a ceremony to be weighed by Išmekarab and Lagamal and Inšušinak would have given the final command (Tavernier 2013: 476, 479). There was no such weighing ceremony in Mesopotamian beliefs, according to the texts, as evidenced in Elamite texts (MDP 18, pp. 250–252) (Van der Stede 2007: 107). According to Tavernier (2013: 483) neither Inšušinak nor Išmekarab and Lagamal were believed to weigh the souls. In contrast, Bottéro (1982: 396) argues that Inšušinak himself weighed the souls. A similar ceremony can be found in Egyptian beliefs as the ancient Egyptians believed that the heart must be weighed, but such belief could not enter the Elamite religion directly from Egypt. Additionally, the lack of such narration in Mesopotamia is strange. Therefore, according to Tavernier (2013: 483), the contextual development of weighing in the afterlife must have developed in Elam apart from other civilizations. In Elam, the deceased would throw himself at the feet of Inšušinak in order for this deity to decide his destiny and weigh his soul (Lake 2010: 94).

Hinz (2008: 57) suggests that Inšušinak was the deity of the underworld.Atahamiti-Inšušinak has written on a stela in Susa a request for support from Humban, Kiririša, and Inšušinak, and specifically called Inšušinak the "Grave Deity" (König 1977: 173, 84). This is the only evidence with this title (Sarraf 2008: 71): "I, Atahamiti-Inšušinak, son of Hutran-Te[pti], []?, great god, and (goddess) Kiririša,? Inšušinak, my god, I held in hand? And I [] and Hut () by Halkataš I finished for my father? [and]? for Inšušinak, for Tombs Deity, my? god they gave" (König 1977: 174, 86, Sects. 3–6). Hinz (2008: 57) comments that Inšušinak was possibly significant as he was the ruler of the underworld and that it is therefore possible to call this deity the "Deceased Deity" or the "Underworld Deity". Another clay tablet repeats that "Inšušinak judges from inside the tomb" (S3-D252-E3III-B17) (Steve and Gasche 1996: 334, 336). Inšušinak, however, was not believed to take lives (Grillot-Susini 2001: 148).

Carter (2011: 52) argues that the Haftteppe stela mentions "Inšušinak's chariot," which would transfer lives to the underworld. Inšušinak's dominance and the soul companionship of Išmekarab and lagamal in the underworld is mentioned on some tablets from Susa as well (Sb 21854 and Sb 21855), as can be found in the inscription, "Išmekarab and lagamal walk in front and Inšušinak expresses his verdict from the tomb" (S2-D251-E3II-B16), for instance (Steve and Gasche 1996: 334, 336). Therefore, Inšušinak was a Deceased Deity for a while, as Nergal was in Mesopotamia (Sarraf 2008: 71). Inšušinak seems to conquer the place of Nergal in the underworld in the Old Babylonian Era (Hinz 2008: 58).

Additionally, Inšušinak became the Oath Deity throughout Elam, and the Elamites took an oath to Išmekarab and Inšušinak in the courts. Therefore, one may consider Inšušinak as Oath Deity as well (Hinz 2008: 57). Inšušinak plays a major role in a text, "Two brothers' struggle" and another document from the second millennium B.C.E on the reclamation of a piece of land (ibid. 116; idem. 1964: 84–85). It could be claimed that Inšušinak was the legislator and Nahunta executed laws in Elamite court (idem 2008, 120). Furthermore, these two deities had primary control over the witnesses in legal texts from Elam. Therefore, these two deities were the masters of both this world and the underworld (ibid. 58). The *kitin*, the supernatural guard and Inšušinak's rules, would have left whoever lied as a witness and both world punishments awaited him (ibid. 122). Oath had a great place in the minds of Elamites: "…Inšušinak, the king of Susa, [annihilate him]" said Hammurabi in a text about treaty violence (ibid. 119). Therefore, one can assume that Inšušinak was also linked to the world of judgment.

Belief in the underworld and the Judge Deity as a supreme deity can rarely be found in other religions except for Egypt. Babylonian Marduk, Assyrian Ašur, Iranian Ahura Mazda are all supreme deities but not links can be found to the underworld. Each of the abovementioned cultures has deities related to the after-life but they are less-important deities. There are also some

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suspects that these heads were the guards or companions of the tomb owners through the dreadful underworld.

mythical narrations such as the descent of Ištar to the underworld and her facing Erškigal, the queen of the underworld, and the story of Domozi; none of these myths are corresponding to the judgment of the soul. Also, AhuraMazda in Iran was not related to the deceased. Iranian Soruš and Rašn (*Ardāvīrāfnāmag*: 5, 3) and sometimes other deities were linked to leading souls in the afterlife and to the judgment of souls (Gignoux 2003: 53).

Therefore, the deity with such titles as the "King's Supporter", "Great God", "Great Supporter", "Our City Supporter", "My God", "My King", "My Ancestor", "Susa Supporter", "Kings' God", and one of the most respectful and supreme deities of the Elamite trinity was believed to control the destiny of souls. According to Vallat (1998: 339–340) and Grillot-Susini (2001: 141–147), the death lacked significant and Henkelman suggests that not much is known about the Elamite religion, which is highlighted in our lack of knowledge about their obsession with death and of the idea of a final judgment. The author of this article argues, however, that the evidence presented in this paper can no longer be ignored; it is impossible for us to put this evidence aside and wait for more. It is inevitable that one day there will be more pieces of evidence and objects and inscriptions about the Elamites' belief. It is also possible evidence has yet to be discovered that could disprove the hypothesis that the Elamites feared death. At present, however, evidence indicates that it is possible that the judgment of the soul was of a particular significance for the Elamites. While the author cannot prove beyond doubt that the subject of death was important for the Elamites according to the available pieces of evidence, it appears that it, as well as judgment in the underworld and the steps to its entrance, may be of significance.

5   Conclusion

Death and destiny after death has always been challenging for different groups of people. Questions about where souls go after death have always been influential and have encouraged myths, beliefs, depictions, texts and constructions.

Inšušinak, a Susa Deity, is referred to with titles such as the "King's Supporter", "Great God", "Great Supporter", "Our City Supporter", "My God", "My King", "My Ancestor", "Susa Supporter", and "Kings' God" through the history of Elam. Additionally, Inšušinak was the judge of the after-life and the underworld. He also achieved a position among supreme deities in the Elamite trinity although he was never ranked first. Elamite kings and people respected him as he was linked to the oath, treaty, and witness. He was even associated with the world of judgment.

The underworld judge is among the supreme deities among Elamites. Indeed, Elamites appointed Inšušinak to the underworld judgment, possibly to demonstrate their fear of the destiny that awaits their souls. A supreme god was in control of that world and this was common perhaps only in Egypt. The facts that among his assistants were Išmekarab and Lagamal prove the significance of the judgment of the soul after death. It is possible that there were other deities related to that cult.

Therefore, it is possible to conclude that soul's destiny in the after-life was of particular significance and was also dreaded as people feared being judged and failing to pass the standards set by a supreme and significant deity as Inšušinak, although this in not directly mentioned in Elamite texts. It is possible that the Elamites severely feared the underworld and Inšušinak's judgment.

Indeed, according to the present pieces of evidence and regarding Inšušinak as the master and the judge of the underworld and one of the supreme deities in Elamite trinity, it is possible to conclude that underworld judgment was of uttermost significance and dread for Elamites. In other words, they feared both the underworld judgment and Inšušinak. The feared how their souls would be judged by Inšušinak, the judge, and they feared Inšušinak as he judged the souls in the after-life.

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Introduction and Analysis of Luristan Bronze Pins in the National Museum of Iran

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Abstract

Luristan Bronze pins are among the various species and at the same time very interesting type of metal objects which have been used since the first and second millennium B.C. Similar examples of these pins have been discovered in different layers and found in numerous sites in various regions of Iran and even other neighboring areas. These pins are of different verities and applications; they have been made by different methods and styles and have very diverse designs. Various kinds of metals like iron, silver, and alloys such as Bronze and sometimes as a combination of different metals (mixture of iron and bronze) have been used in making them. Considering the available sample in Iran national museum, in the present study, it is tried to investigate and study this group of findings in the Iron Age regarding different aspects.

1 Introduction

Respecting natural and Cultural geography, Luristan is divided into two areas of Pusht-i Kuh and Pish-i Kuh Kabir kooh with a northwest-southeast direction is one of the heights (mountain chains) in central Zagros, west of which is called Pusht-i Kuh (today's Ilam) and the eastern part is named Pish-i Kuh (today's Luristan).

Archeologically, this area has a significant importance and also regarding adoptive climatic conditions of Zagros region since Pleistocene (the geological fourth period), archeological evidences confirm the residential nature of this area at least since the middle Paleolithic period (Hole and Flannery 1967: p. 16). On the other hand, historical evidences denote the point that Zagros region has been invaded by many nations and tribes from the third to the first millennium B.C. so that from the third millennium B.C. Kuti and Lullubi tribes used to live on the north of this area, since the first half of the second millennium B.C. societies living in these areas consisted of Kassites, and in the middle of the first millennium B.C. most parts of this district were first

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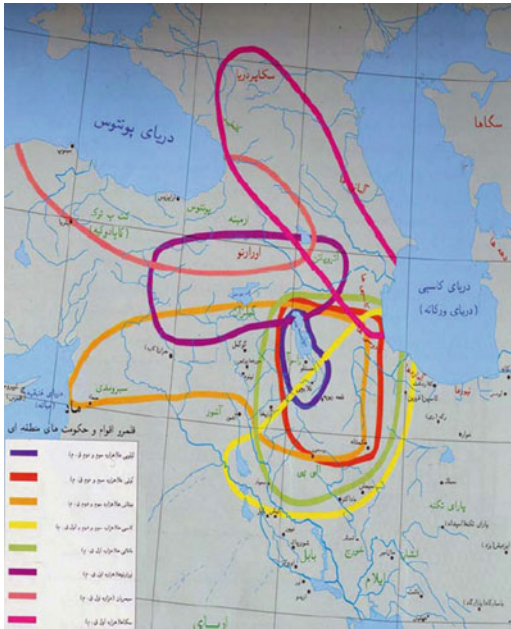
Map 1 Western Iran tribes in the third to the first-millennium B.C. (Zarinkoob et al. 1999: plan p. 25)

occupied by Ellipsis and then by Medes newcomers (Map 1).

The first archeological excavation in Luristan region was performed by de Murgan during 1891–1902 in order to study some sites. In 1928, some scientific excavations were carried out in the eastern Luristan by Herzfeld for the first time and some years later in 1931–1933, Contenau and Ghirshman performed multiple excavations in Giyan and Jamshidi hill (Contenau and Ghirshman 1935). During 1934–35 and 1937–38 Schmidt and his accompanying board, called Holms Board, undertook some scientific investigations and excavations in Luristan (Chegini 1994: pp. 97–114) and in 1938 they succeeded in

discovering and excavating Sorkh Dum Temple in Kouhdasht plain (Schmidt et al. 1989).

During 1936–1940 a British team supervised by Aurel Stein fulfilled some archeological excavations in Luristan (Stein 1940). Since 1965 a Belgian team under the supervision of Vanden berghe who aimed to discover Luristan's civilization and culture commenced their archeological excavations (Vanden berghe 1958). Also, in an article entitled "Dating the Luristan bronze Disc-head Pins" Majidzadeh has published a specialized issue about dating pins which is the only existing article related to these kinds of Bronze objects (Majidzadeh 1988).

Following archeological excavations in this area, many antiquities and objects including bronze pins have been discovered which were considered very important artistically and archeologically, examples of them have been displayed in many museums of the world. In fact, pins are instances of the objects which can be found in all bronze complexes of Luristan; these objects are mainly discovered from graves and sometimes from religious places like Sorkh Dum temple (Curtis 2000: pp. 55–58) and are decorated with various figures (including geometrical and mythical figures, plants, humans and animals).

In the present paper out of 248 samples existing in the National Museum of Iran, 40 examples of Luristan's pins which were chosen selectively from the existing samples in the National Museum (including hall or storehouse). They were investigated and analyzed based on cluster sampling method (Table 1).

These objects have been classified in four groups according to their appearance which can be generalized in comparison to other metal objects (metal pins) discovered in Luristan.

Table 1 Different groups of pins and investigated samples

Name	Existing number	Number of selected samples
Simple group	177	25
Circular group	66	9
Netted group	23	3
Rectangular group	18	3
Total	284	40

2 Metal Pins and Their Types

Metal pins are considered as decorative objects which have been classified in two groups of ritualistic and Votive objects by some scholars (Vanden berghe 1958: p. 91). Regarding their appearance, they can be divided into two groups; (A) pins which are called pin in English and are consisted of two parts and (B) fibulas which were populated since the eighth century (Moorey 2002: 106). The present study deals with investigation and analysis of the first group.

P. R. S. Moorey has classified this group of Luristan's pins into three classes based on their appearances 1: Disc head pins which have been made with geometric shapes. 2: excellent Bronze Disc head pins and 3: wide round Disc head pins (Moorey 2002: pp. 106–107). But based on a more precise classification they can be divided into four groups which include: A—pins with

Fig. 1 Types of pins (up to down: circular, rectangular, netted and bar)

Table 2 Production method, mean length, and mean weight of Luristan pins

Variety	Mean length (cm)	Mean weight (g)	Production method
Simple group	10.3–29	12–111	Molding and casting
Circular group	3.5–23	23–194	Hammering
Netted group	6.7–20.4	35–260	Molding and casting
Rectangular group	10.4–32.5	29–128	Hammering and molding

wide round heads (having various figures of Umbo, simple, and Decoration) B—pins with Rectangular heads (square and rectangle) C—Pins with netted head (in crescent, square, rectangle, and circular mould) and D—simple pins which are bar-shaped, head of which have been decorated with various and distinct shapes like plants, animals, mythical, geometrical and simple designs (Fig. 1). In average, mean lengths of the investigated pins varies from 4.2 to 32.5 cm and their mean weights ranges from 12 to 260 g (Table 2).

3 Designs, Production Techniques, and Decoration of Pins

It is shown by a precise test performed on pins that two linear and moulding methods and in some cases jeweled embellishments have been used in order to create their designs (Majidzadeh 1988: p. 5). Herzfeld also, notes that Luristan bronzes have been produced by casting in mould; a method in which every form or shape must be processed again […] (Herzfed 1976: pp. 154–174). About making Luristan Bronze objects, Moorey believes that metal objects were made by hammering and metal sheet and gradual cooling; Bronze tools were used for decorations and drawing designs in internal and external parts of plates (Moorey 2002: p. 24). According to what mentioned before, it can be stated that the main method to make these objects have been casting along with molding and hammering and also to create designs on the pins linear methods were used (Table 2).

About different kinds of designs existing on Luristan pins, it must be mentioned that, these designs are mainly observed at the beginning part of them and include various designs like plants, animals, human as well as mythical, and geometrical ones (Fig. 2). In some cases, designs existing on these types of objects differ from those found in the nature and have been designed in a cryptic and exaggerated way which probably represent beliefs of those who have made and used them (Table 3).

4 General Applications of Pins

Most pins discovered during archeological excavations in Luristan or those related to this area are made of Bronze, however in some cases they are a mixture of different metals (for example, a bar which is made of iron with a bronze sheet) and occasionally they are made of bone or completely from iron. Although they might have been used for different purposes, what is obvious now is the fact that generally several types of applications can be considered for these pins, most important of which include:

1. One of the most common views about these pins is their application as hair ornament and this view may origin in finding some of these pins beside corpses' heads during excavations. However, it is noteworthy that the mentioned application has been appropriately shown on the obtained metal deigns and even on the pins (Fig. 3).
2. Another application stated for these pins is using them to be installed on clothes. This application can be described as follows: a pair of pins was used to be bound on the chest and then passed through the gown; its tip was
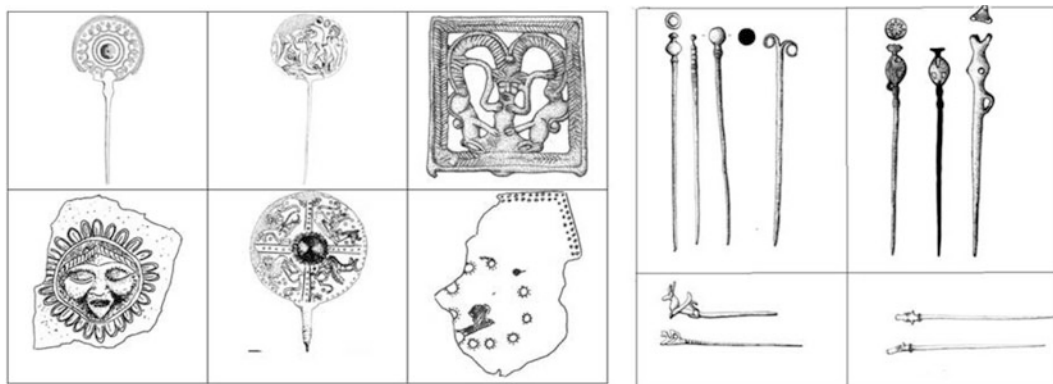
Fig. 2 Examples of different types of designs on various kinds of Luristan pins

placed on the shoulder and near the face. Marcus believed that clothing-special pins have 5–13 cm lengths and most often were used by women. Yet, he has mentioned another kind of pins, found in graves, which he has called cerecloth pins and believes that cerecloth-special pins have been 14–36 cm in length (Marcus 2006: p. 48) (Fig. 4).

3. The third application for these pins is using them as chariTable objects; however, about ritual and religious application of these pins it can be stated that it is like today's hanging tapestry in a shrine, that people of those ages submitted them to their Gods in order to gratify their needs.

4. According to the author's personal observations, in some villages of Luristan province and among the present nomads of the region, simpler wooden examples of these pins are used to weave rugs and bands. In the author's opinion perhaps it can be stated that maybe as the fourth application, these pins were also used to weave carpet or cloth.

5. At last, it must be mentioned that symbolically and applicably, Marcus believes that: firstly, pins represent important stages in women's life; secondly, they were considered as tools to help women for protecting them from dangers which threatened them; and thirdly, they helped to create an image of an armed society, since they were complementary of men's war weapons and they were also considered as designs which show men while fighting and hunting (Marcus 2006: p. 46).

5 Comparison and Relative Dating of Pins

Examples similar to Luristan's pins have been made in most areas of the present Iran (north, west, northwest, and center) in similar forms and occasionally with a little difference (Yadollahi 1997: pp. 136–137). Similar examples of them have been discovered in many archeological sites in Iran like Sialk (Ghirshman 1938), Haftvan Tepe (Burney 1972), Dinkhah Tepe (Muscarella 1974), Kord lor Tepe (Lippert 1979), Hasanlu (Dyson 1989) Marlik Graveyard (Negahban 1977), Klourz (Khalatbari 1992), Kabood Mosque (Noubari 2000) and many other archeological sites (Fig. 5). Also, about areas out of today's Iranian political borders it must be stated that Ghirshman has mentioned that many bar pins are comparable to Greece pins respecting their designs and their metals (Ghirshman 2002: p. 76). Designs of some pin heads are influenced by Ilame art (Porada 1965: p. 111). Some pine heads have Caucasus origins and this issue shows that Luristan art has been affected by intermediate Hittit's arts (Izadpanah 1997: p. 415). Some pins have been observed simultaneous with the first half of the first millennium from Egypt and Caucasus which are similar to Luristan's pins and some pins with

Table 3 Designs existing on the investigated pins

Group	Percent	Domed (Umbo)		Without Umbo		Human		Animal									Plant			Mythical	Geometrical	Unclear design
		Designed	Simple	Designed	Simple	Man	Woman	Wolf	Ibex	Bear	Deer	Cow	Ram	Bird	Lion	Snake	Leaf	Rosette	Pomegranate			
Circular	22/5	3	2	4!	–	3	1	–	1	–	–	–	–	1	3	1	4	2	1	1	7	–
Netted	7/5	–	–	–	–	3	–	–	3	1	–	–	–	–	1	–	–	–	–	–	1	–
Rectangular	7/5	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–	1	2	–	–	2	–
Simole	62/5	–	–	–	–	–	–	1	2	1	2	1	1	2	1	–	1	–	3	3	12	3
Total	100	3	2	4!	–	6	1	1	6	2	2	1	2	3	6	1	6	4	4	4	22	3

Fig. 3 Quality of using pins for head (Yildirim 1989: 138)

Fig. 4 Quality of using pins for clothing (Ayazi 2008: 57)

simple heads were discovered from Mitanni, Anatoly, and Phrygia which resemble to each other (Yildirim 1989: pp. 99–104). About the cases similar to these pins which have been obtained out of Iran, it can be said that most of them have been found in areas like Mitanny, Urartu, Caucasus, Syria, Egypt, Greece, Italy, Ashure, Palestine, and etc. (Fig. 6). However, it is noteworthy that diversity of pins obtained from Luristan is very much and the pins discovered in other areas pins have less diversity; although, Fibula have the highest number.
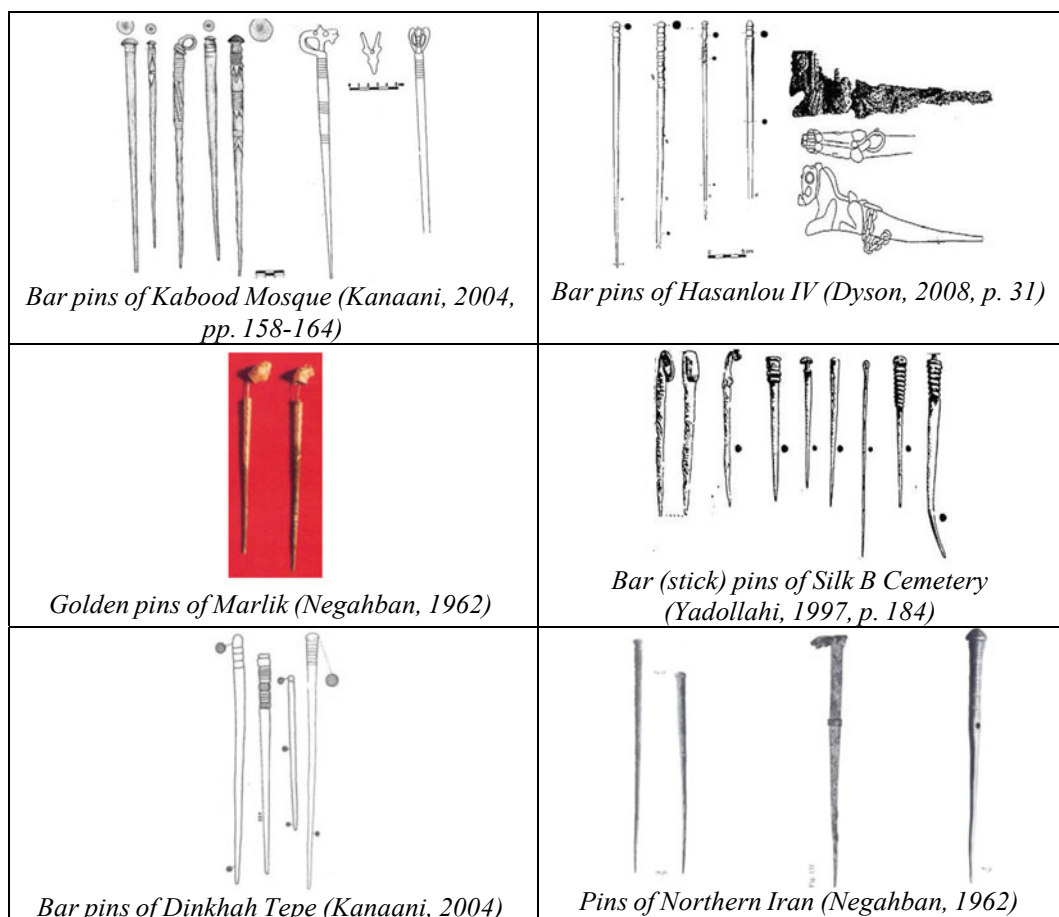
Bar pins of Kabood Mosque (Kanaani, 2004, pp. 158-164)	*Bar pins of Hasanlou IV (Dyson, 2008, p. 31)*
Golden pins of Marlik (Negahban, 1962)	*Bar (stick) pins of Silk B Cemetery (Yadollahi, 1997, p. 184)*
Bar pins of Dinkhah Tepe (Kanaani, 2004)	*Pins of Northern Iran (Negahban, 1962)*

Fig. 5 Examples of internal pins of Iran

About dating pins it must be stated that the oldest pins discovered in the Middle-East relate to Ur Royal graveyard which have been found beside other bronze objects and made by casting (Moorey 1971: p. 207). In general, it seems that making very simple pins have been stated to date back to the third millennium B.C. and during the first and second millennium B.C. skilful types were added to these pins. It must be noted that, reasonable dating for Luristan's pins should be done based on examples of other neighboring lands like Mittanny, Urartu and especially Ilam and simultaneous governments in Mesopotamia. Although various and different datings have been provided by scientists and experts most of them usually consider a date between the third to the first millennium B.C. for pins (Godar et al. 1996:

pp. 211–215; Vanden Berghe 1958: p. 92; Calmeyer 1969; Ghirshman 1967; Curtis 2000: p. 58; Kabiri 1977; Alaei 1997: p. 14). By comparing these designs with those of Ilam, Ashur, Urartu and Mitanni lands a date equal to 1300 B.C. can be considered as a starting time to produce these objects; yet it seems that producing them has continued till late Iron Age III, namely about 600 B.C.

6 Conclusion

Luristan Bronze is considered among the important objects ornamenting the Iranian museums and like other private collections and museums are regarded as the most divers and
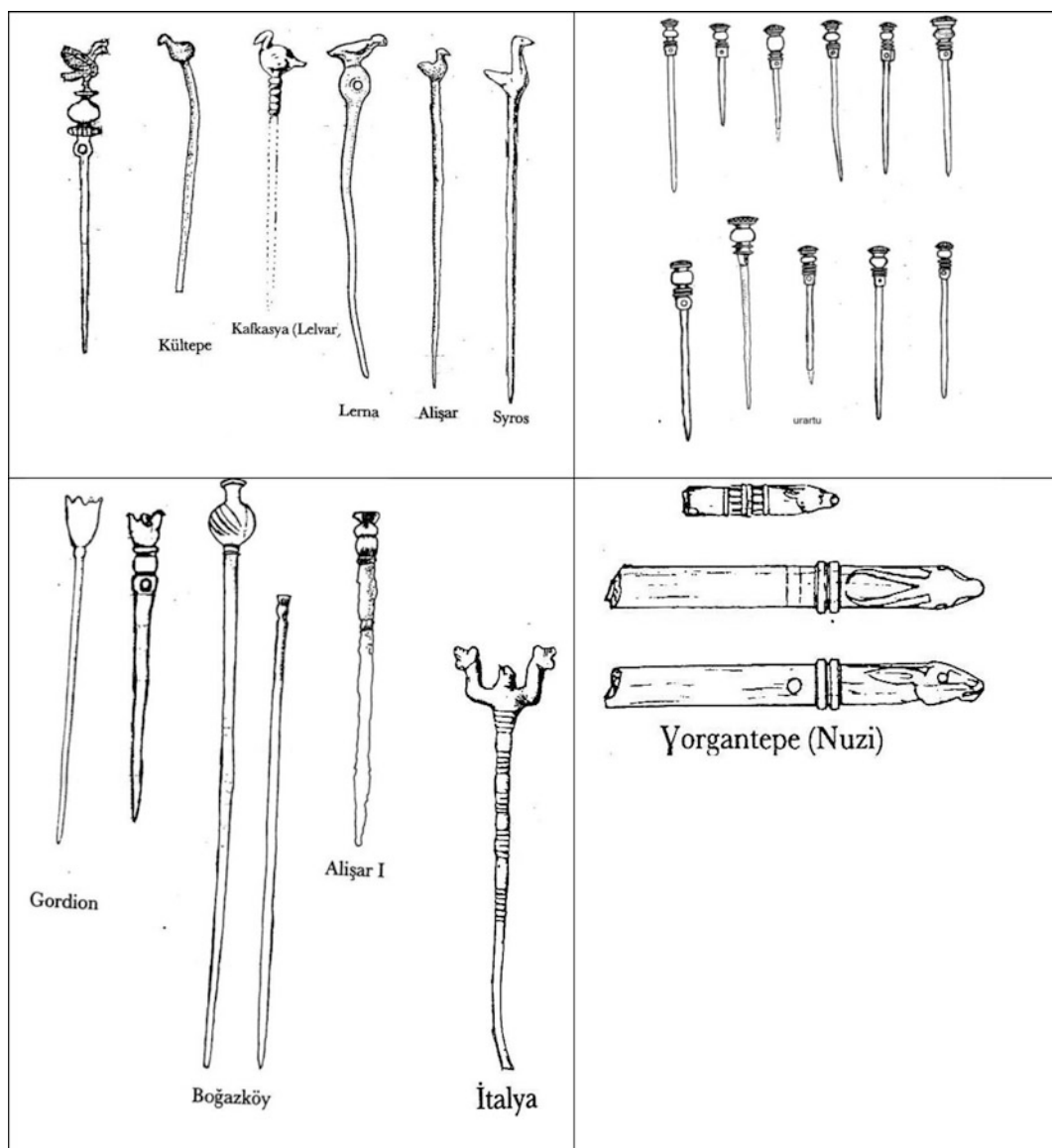
Fig. 6 Bar (stick) pins discovered from out of Iran (Yildirim 1989)

beautiful species of these kinds of objects. The pins discussed here have been found in many other areas both inside and outside today's political borders of Iran as well as Luristan which have various species and relatively varied designs.

Making these types of decorating and ornamenting pins has been started since Iron Age and probably continued till the end of this age, but at that time fibula which started to be made from the eighth century B.C. replaced them. In addition to applied aspects of the pins in the past, they have been used in different ways in the modern ages (for example, for clothing, hat pins, a potential weapon for women and etc.) (Marcus 2006: p. 59). Generally, it seems that most users of these pins were consisted of female groups. Although pins discovered from archeological scientific studies in Luristan have been reported to be more diverse than other areas, they are

similar to each other very much regarding dating and decorations and this fact denotes the effect and influence of art among the producers and users of these types of objects.

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A Decorative Column Base from Bukan Region (NW-Iran) and Some Remarks on Its Dating's and Artistic Tradition

Kazem Mollazadeh

Abstract

In 2003, within archaeological surveying project of Bukan, a column base in a horse breeding farm was found. During the preliminary evaluation of the column base, this possibility was proposed that this column base has been unearthed in an illegal excavation from the site of Qalaichi and transferred to its present place. In this article, the author tries to evaluate the object and then discuss how it is related to the site of Qalaichi, and eventually its placement is going to be studied.

1 Introduction

The southern basin of Lake Urmia as well as the valleys of the two important rivers (Siminehrood and Zarrinehrood), has been considered by different group of people since prehistory up to the present because of their environmental conditions, and all this has resulted in the formation of a glorious cultures. This region, during the 1st millennium, was the Manneans kingdom's birth place; a kingdom which had an absolute predominance over the region at least from the middle ninth to early sixth century B.C. The Manneans had a distinctive art and culture which beside their geopolitical situation—neighboring Assyria and Urartu empowered and changed them to an almost widespread and impressive kingdom. Discovery of the remarkable artifacts in the sites of Qalaichi, Ziwiye, Zendan Soleyman and Kul-Tarike, backs up such a claim. Studying the artistic and cultural artifacts discovered at these sites help us understand the artistic relations between the Mannea and Assyria (these relations themselves have been the consequences of the broad political ties in this period of time), and it also indicates the artistic and cultural richness of the Manneans.

2 Background of the Studies

In 2003, in the course of surveying the region of Bukan, I Visited a column base in a horse breeding farm, which was located on the southern outskirts of the city of Bukan. Despite its importance and uniqueness, no effect was unfortunately made-neither for studying nor for transforming this item to a suitable place. In the primary studies and on account of the artistic resemblances as well as some other evidences, this possibility was proposed that the this column

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base (apparently together with another one which has been destroyed) has been unearthed in an illegal excavation on the site of Qalaichi and transferred to its present place.[1] In this article, I try to firstly introduce the discovered column base, compare and date it, then discuss how it is related to the site of Qalaichi, and eventually its placement is going to be studied.

3 Introducing the Discovered Column Base

In the yard of the horse breeding farm of Uch Tepe in Bukan, a column base with high level in aesthetics is preserved; it had definitely belonged to a significant building. This circular column base is 50 cm high and approximately 80 cm thick. It is made of an almost high quality kind of buff limestone and has two simple cylinder strips on the upper and lowers parts, and its convex body part has reliefs on it (Plate 1). The lower strip is thicker in size due to the technical and static reasons. It is also possible that this column base had originally been laid on a cubic base, like a parallel column base from Assur (Plate 5). The upper strip is thinner and has a conic form which stretches toward inside with a fine curve and prepares a suitable transitional part for constructing the shaft. Main part of the column base, which is convex and symmetrical, is decorated with two strips including Symbolic designs; these strips are very much in harmony with the column base's convex shape. The main part of the lower decorative strip is composed of arcs which are attached together with a lozenge design below and a shell-like or leaf-like design above. Above this part and right opposite to it, there is another strip including interconnected arts with a sphere and a lozenge decorative element in middle. The layout of this column base is both more beautiful and brilliant comparing to the other comparable examples.

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[1]Kargar, excavator of Qalaychi believed that this column base belongs to Qalaychi. Here I thank Mr. Kargar to visit this column base.

4 Comparison and Dating

Bukan column base is a unique example in Iran, and no similar column base has been reported from other Iron Age sites. The brick or stone slab column bases found at Hasanlu (Dyson 1989: Fig. 15), Ziwiye (Plate 8), Qalaichi (Plate 7), Nushijan (Stronach and Roaf 2007: 164, Fig. 7.4) and Godin Tepe (Gopnik 2011: 320–321, Figs. 7.12 and 7.13), are all simple, without any decorations or any particular artistic feature. It is only in the Achaemenid dynasty when the first decorated column bases appeared. Albeit the lack of comparable samples, the decorative designs on the Bukan column base is comparable with several other designs applied on the artifacts of Ziwiye, Qalaichi and Rabat that is attributed to the 1st millennium. Moreover, it is illogical to say that this big column base had been imported to this region (Fig. 1; Plates 2, 3 and 4).

Although Bukan's column base has no comparable parallel in Iran over the Iron Age, there are some strikingly similar items for it in Assyrian sites. The most comparable column base was found in North palace of Nineveh about 650 B.C. (Plate 5), Khorsabad (Plate 6) belonging to the reign of Sargon II (727–705 B.C.) and other's (Plates 7 and 8). Some other comparable items could also be found in Assyrian reliefs and Other artifacts (Plates 9, 10 and 11). Columned halls were not common in Assyria; however, the Assyrians were completely familiar with this architectural element (column) and would utilize it in several entrances (Iwans) as well as the interior
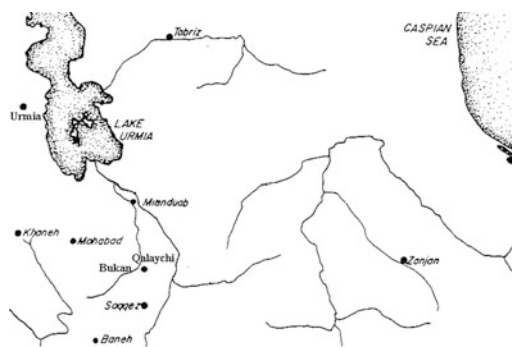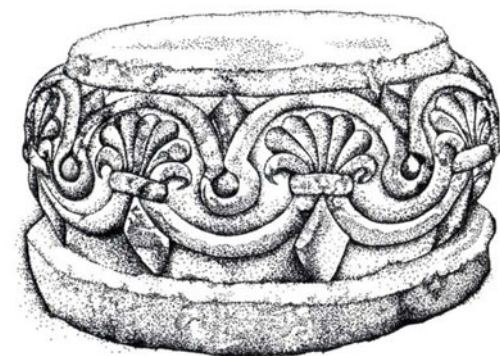

Fig. 1 Map of north-west Iran, showing the Qalaychi

Plate 1 Column base from Bukan region (Mollazadeh)

Plate 2 Plan of columned hall and the possible location of the discovered column base (Mollazadeh)
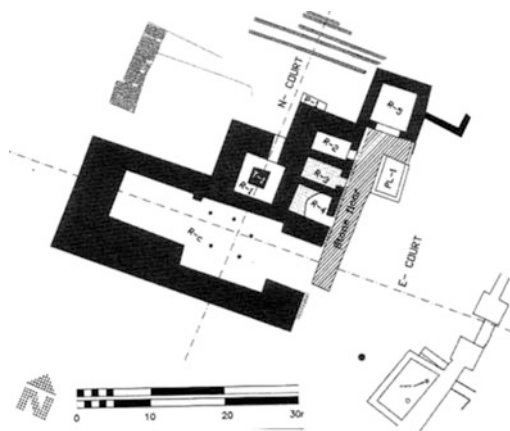
Plate 3 Plan of the excavated architectural remains at Qalaichi (Kargar 2004)

parts. During the excavation at Khorsabad some simple and inscribed column bases were discovered which approximate that of Bukan in design and decorative motifs. An inscribed column base made of basalt was found among the remains of room no. 15 in the palace K which was so similar to that of Bukan in motif and decoration (Plate 6). Decorations of this column base are generally simpler than the Bukan's column base, but it approximate Bukan's sample in having two rows of interconnected arcs in an opposite direction. There is also another column base (Plate 5), kept in the British Museum, which bears more resemblance with the sample of Bukan. This column base is decorated with similar designs and motifs. The column base, which is kept at the British Museum, has a large cubic base. There are some other simpler column bases similar to that of Bukan at the entrance (Iwan) of the palace F in Khorsabad (Plate 12). Similar column base in form of stone model was found in Assyrian sites

(Plate 9). In addition, some analogous column bases have been depicted in Assyrian reliefs (Plates 10 and 11).

On the account of the mentioned samples, the absolute dating of the Khorsabad column bases (dating back to the reign of Sargon II, 727–705 B. C.), and owing to the widespread interrelations

Plate 4 Reconstruted illustration of columned hall entrance and possible location of the discovered column base (Mohammad Yari)

Plate 7 Assyrian capital, in perspective; compiled from Place (Parrot and Chipiez 1884: 207, 214)

Plate 5 Column base from Nineveh, North palace (British Museum. BM. 91989)
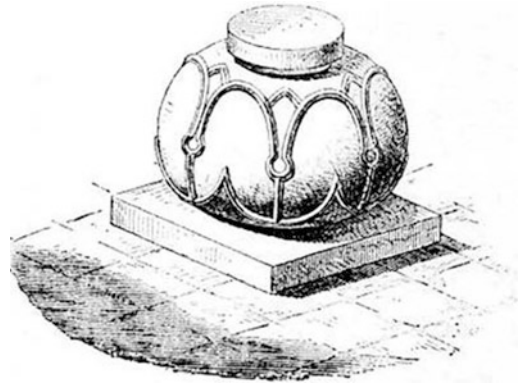
Plate 8 Column base from palace of Sennacherib, in limestone (Parrot and Chipiez 1884: 214)

Plate 6 Khorsabad, one of three basalt column bases from the debris of palace K, room 15 (Loud and Altman 1938: pl. 32)

between Assyria and Manneans, we could relate Bukan's column base to the late eighth or early seventh century. But Bukan column base is similar more to the Nineveh's example, that belong to middle of the seventh century B.C.. The presence of such column base in the region of Bukan and Manneans territory, is justifiable by similarities between other Manneans and Assyrian artifacts (ivory works, glazed bricks, metal works and etc.), and their military and political ties which have been reflected in Assyrian inscriptions, particularly in Sargon's Eighth campaign (714 B.C.).

Plate 9 Stone model represents a kind of column base. H.9/1 L.83 (British museum. BM. 90984; Curtis and Reade 1995: 100)

The decorative designs used on the column base's main part, found in Bukan, as well as Assyrian examples, were apparently common motifs over this period of time. Some parallels of these motifs not only appear on the other artifacts in Assyria and Mannea, but they also can be observed on the designs of Babylonian Glazed brick (Plate 15) from Throne room of NebuchadnezzarII (Leick 2007: 166) and later periods.

5 The Main Location of Bukan's Column Base

Bukan column base has certainly belonged to an important specific building because even in the site of Ziwiye and in its hall which seem newer, simpler column bases have been used. The momentous site of Qalaichi, according to its valuable architecture and rich glazed bricks decoration together with geographical adjacency, is the most probable option. Qalaichi is located 8 km north-east of Bukan township, and it is one of the most important Mannaean sites excavated over the recent years. In 1985, and in the course of illegal excavations, this site was broadly destructed and its wonderful artifacts were plundered (some by looters and some by the residents of Qalaichi and Bukan). In the same year, Ismail Yaghmaie was assigned to conduct a rescue excavation on this site for one season; the result of this excavation has not been published yet. During this excavation, architectural remains, stone stele and several glazed bricks were dug out (Yaghmaee 1985). Excavations at Qalaichi again was resumed in 1999 by Bahman Kargar and continued for nine seasons until 2007 (Kargar 2004, 2007). Unfortunately, reports of these excavations were not completely published either. The author, who had the opportunity of being in 3 seasons of the mentioned excavations, has studied the potteries of this site and published its results in another article (Mollazadeh 2008b: 107–127). Moreover, stele, which was discovered from this site, been studied by Lemaire (1998), and Fales (2003). It appears that the site
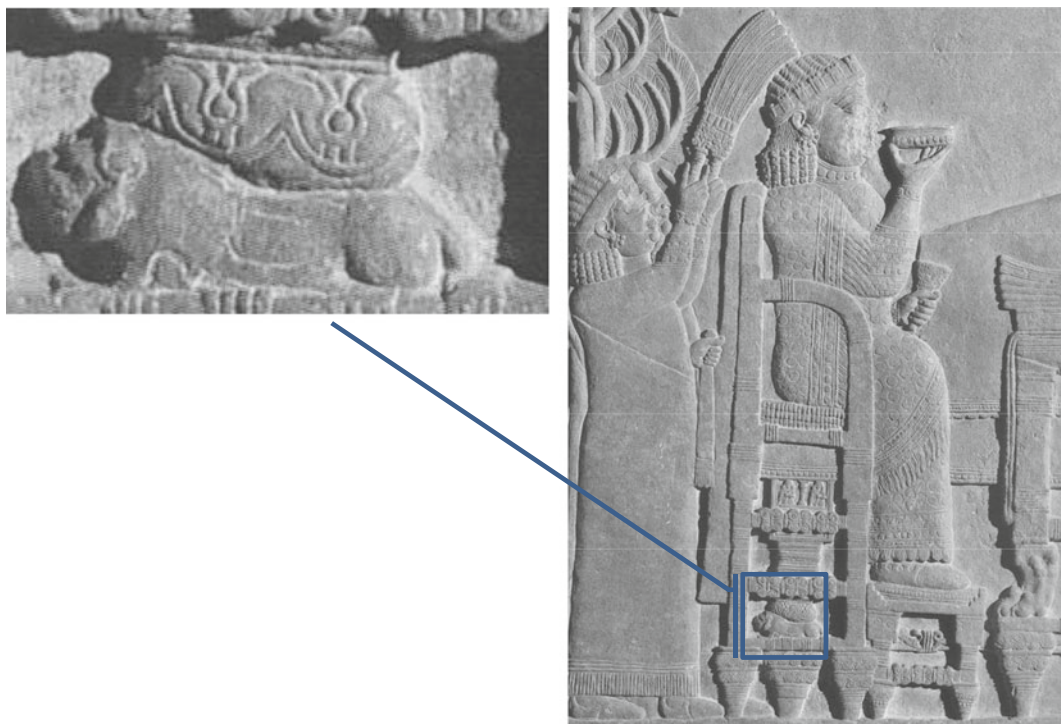
Plate 10 Nineveh, north palace. The Queen of Assyriaca. 645 B.C (Reade 1994)

of Qalaichi have just been an important religious center of the Mannean.

Accordingly, we can conclude that the Bukan column base and its probable parallel, which has been destroyed, were both found in 1985 during plundering of Qalaichi and transferred to its current place. Artistic similarity, concurrence, geographical adjacency, hall and Iwan-like places for which columns are necessary, rich architectural decorations, the existence of a stone shaft and broken pieces that could belong to the lower part of column base as well as other evidences, all verify this positioning. In case the positioning is true, some suggestions about this column base and its reconstruction could be proposed.

Among the excavated architectural spaces in Qalaichi, there are only two spaces in which positioning of this column base are possible: hall and Iwan (or entrance). Based on size and the particular plan of the hall which needs more than two columns beside finding stone pieces which seems to be the remains of simpler and smaller

column bases,[2] this column base must not be for the interior space of the glazed bricks of this site were studied and published by Niakan (1999) and Hassanzadeh (2006, 2011). The stone hall. So, the unusual wide entrance of the hall is the only probable option. It appears that in this entrance has originally been a pair of columns with beautiful decorated column bases (Plate 4). The entrance cover, more than 7 m wide, could have not been erected without utilizing columns; therefore, the mentioned positioning seems true. Also, the rich decorative cover of the entrance (including the glazed bricks) proves the presence of such decorative column bases.

Similar positioning and usage is also seen in Khorsabad (Plates 12, 13). The Assyrian reliefs also prove using a pair of columns in Iwan or entrance (Plate 14). Considering the analogy

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[2]In columned hall, smaller pieces have 50 cm diameter and 20 cm height; and larger pieces have 100 cm diameter and 20 cm height (Kargar 2004: 231).
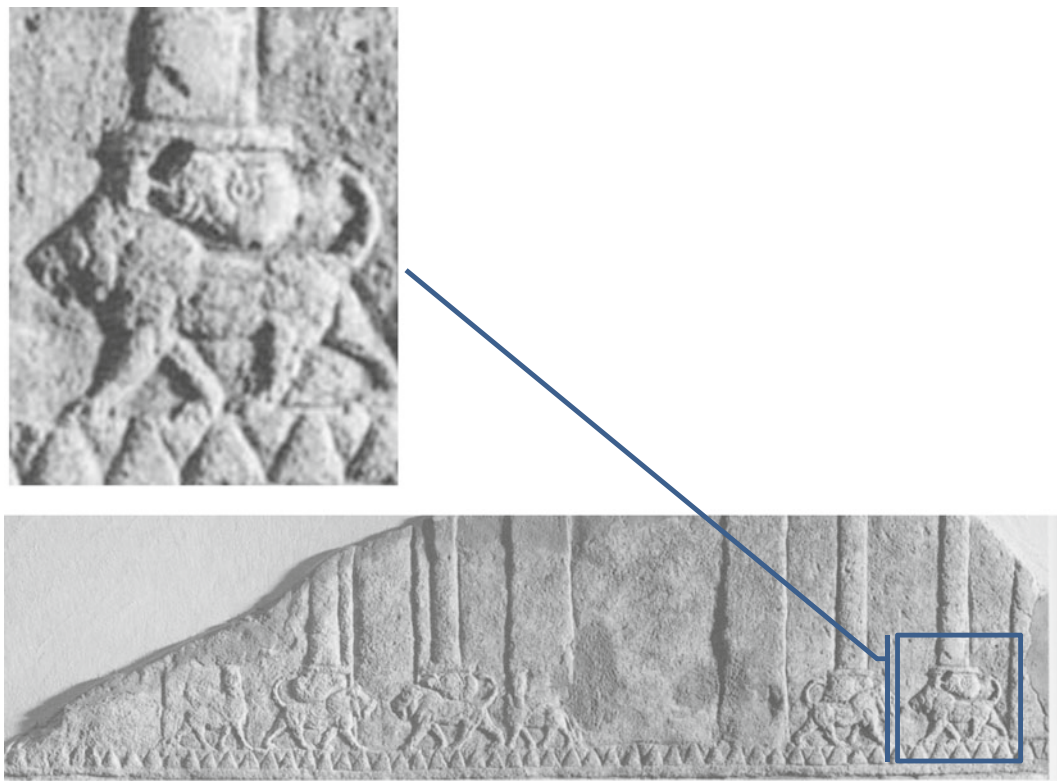
Plate 11 Sculpture from Ashurbanipal's palace ca. 645 B.C (Reade 1994: 40)

Plate 12 Khorsabad, the column bases in the opening of the Loggia facing the outer terrace of palace F (Loud and Altman 1938: pl. 38)

between Bukan column base and Assyrian ones, their situation placements could also be the same.

On Bukan column base is a cylinder shaft, at most 50 cm thick. By discovering cylinder pieces of limestone in the site of Qalaichi, which was called column base (Kargar 2004: 231), one can come to the conclusion that the shaft had been made of stone. However, a shaft with wooden central part and thick inscribed plaster (similar to the columns of the Treasury of Persepolis (Schmidt 1939: 54, Fig. 33) is likely as well (Plate 15).
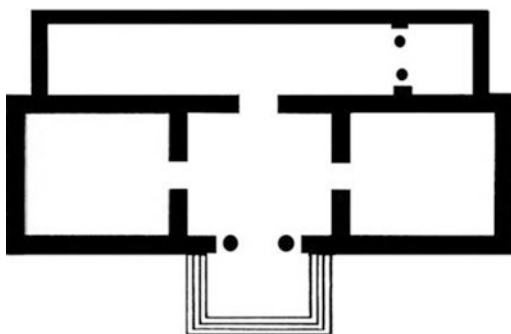
Plate 13 Khorsabad, Plan of "Bit-Hilani" (Parrot 1961: 223)
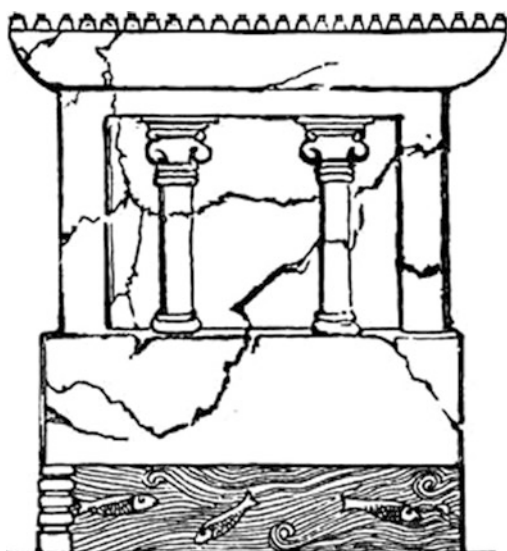
Plate 14 A part of Sargon's wall-panels from room VII at Khorsabad (Reade 1998: p. 84)

6 Conclusion

Bukan column base was found in a region that was the birth place of Mannean kingdom, culture and rich art, which was enriched even more as the result of close relations with Assyria. Although no comparable column base was discovered in the 1st millennium sites of the area, the existence of comparable decorative motifs in the archaeological sites of Qalaichi, Ziwiye and Rabat as well as similar Assyrian column bases, prove that the column base is related to the Iron Age III. On the other hand, however, some other evidences show that this column base has probably been unearthed from the illegal excavations of Qalaichi and then transferred to its current place. The mentioned column base had definitely other parallels which have been destroyed. According to the plan of Qalaichi, the best position for this column base's placement must have been the entrance (or Iwan) of the hall. Broad width of this entrance, rich glazed brick decorations and other evidences confirm this positioning. In regard with the aesthetic aspects of constructing this decorative column base, it should be stated that the political, military and cultural interrelations between Mannea and Assyria, especially over the reign of Sargon II, prepared the condition for Mannean artists to become familiar with Assyrian art and adapt Assyrian artifacts to produce their own artifacts. Discovering ivory, metal and clay products together with glazed bricks all over the sites of this

Plate 15 Babylonian glazed brick from throne room of Nebuchadnezzar II (Leick 2007: 166)

region, which were made by adapting Assyrian samples, verify this conclusion.

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The Evidence of Mannaean in Western Hasanlu

Ali Binandeh

Abstract

Kelishin pass is one of the famous routes in First Millennium B.C. in the northwest of Iran. There are three Urartian steles, Merga Karvan in Iran side, kelishin stele, located in the Iran-Iraq border on the road towards the region of Rawanduz and finally Topzawa stele that located in Rawanduz in the Iraq side. Kani kisal the ancient site located in the entrance of the strait. This site attributed to Urartian Period in the past, as the result of civil works some Mannaean material culture was found in recent years. One of the most interesting problems is the relation between the Urartian material culture and Mannaean material culture. Sargon II's Eighth Campaign, 714 B.C. into the region resulted in intensive defeat of Urartians which ended the Urartian dominant on the eastern, southern and western regions of Urmia Lake and they just dominated the north of the Urmia Lake. The first half of the seventh century is when Mannaean seized the power in that area, the time during which it was expanded more than ever, and Ushnuyeh region was dominated by Mannaean. If we accept that Hasanlu IV not belonged to Mannaean and Gilzanu to be located at Solduz valley and, in the end of

ninth century B.C. Urartu was expanded in this area until 714 B.C. After this period Mannaean control this region.

1 Introduction

The name of Manna first appeared in Assyrian inscriptions in 843 B.C. among the lands invaded by the army of Shalmaneser III (Luckenbill 1927). Manas in late seventh century B.C. had been annexed to Media and it was mentioned for the last time in 593 B.C. as a subject of the Medes.

Probably Hassanlu excavation is the first steps in recognizing Manna in the Urmia lake Basin. Hasanlu IV includes a complex with columned halls, side rooms, and store, which different functions suggested according to the found objects. First the Burnt Building is compared with Middle Assyrian and Middle Babylonian temples. (Dyson and Voigt 2003) and building number two and five suggested as temple (Khatib-Shahidi 2006). Categories IV and IVB were initially attributed to Mannaeans by the American expedition. Salvini believes that Hasanlu IV is Mashta (Salvini 2004). Based on evidences, Hasanlu was ruined in the early of

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ninth century by Urartu attack. Years later following the primarily results published, American explorers expected Mannaens in southern and southeastern areas of Hasanlu (Dyson 1989). At last, recent researches show that Hasanlu IV may have been diplomatically linked to Mannea but that it was not part of Mannea (Khatib-Shahidi 2006).

The other site assigned to Mannaeans following Hasanlu excavation was Ziwiye, Kurdistan province. In 1946, some objects accidental found in Ziwiye, which resulted in extended unauthorized excavations and objects under the name of Ziwiye entered into antique markets, following that Ziwiye commercially excavated, which caused bewilderment in the site. Dyson studied the site between 1956 and 1960 (Dyson 1963) and excavated Ziwiye for three weeks in 1964. He proposed a history within 750 to 600 B. C for Ziwiye that was welcomed by Young, Boehmer, and Muscarella (Muscarella 1977). Excavating Ziwiye continued, after some delay, in 1994 by Motamedi. Then, excavation continuously went on by Lakpour up to the recent years. The remaining architecture of Ziwiye is a mountainous citadel including different spaces such as a hall with columns, store, stone staircase, etc., which entitled Medes-Mannaeans by Motamedi (Motamedi 1997).

The Zendan-i-Suleiman with a religious function is located in the three km of Takht Soleyman (Numann 1977). Based on pottery from, Zendan-i-Suleiman back to the seventh–eighth century B.C (Boehmer 1986, 1989). Qalaichi is located approximately 10 km. northeast of the modern town of Boukan. Yaghmaei excavated at Qalaichi for the first time in 1884–1985, during which he distinguished the culture characterizing Qalaichi from that of the Iron Age. The findings uncovered the presence of distinctive glazed bricks, which were referred to as belonging to the Mannaean culture (Yaghmaei 1985). After a lapse of several years, Kargar resumed excavations of Qalaichi (Kargar 2004). The gap between the beginning of the first excavation to the subsequent dig encouraged the trading of some Qalaichi artifacts, especially painted and glazed bricks, in unauthorized

antique markets or their sale to many museums around the world; some of these illegally traded/sold bricks have been studied (Mousavi 1994).

During his extensive research of the region, Bahman Kargar identified Rabat Tepe in 1986. The findings uncovered the presence of distinctive glazed bricks and A stone pavement placed on the boulder/cobble floor which were referred to as belonging to the Mannaean culture (Kargar 2004; Kargar and Binandeh 2009).

Rabat is one of the largest sites of the Iron Age in the northwest of Iran. The glazed and painted bricks of Rabat are very close to the Qalaichi finds. For the ancient name of site that suggestion, too (Afifi and Heidar 2010; Heidari 2010; Reade and Finkel 2014).

In recent years, Kul Tarike cemetery, in Kurdistan, which was a society relying upon animal husbandry and dry land agriculture based economy, introduced as Mannaeans community (Rezvani and Roustaei 2007).

In archaeological research south of Urmia lake some of forts such as Jan Agha (Binandeh and Kargar 2008), Gale-e- Bardineh (Hassanzadeh 2009) and Joshto (Mollazaeh 2015) attributed to Mannaeans.

2 Kani Kisal[1]

Kani kisal is located at the northern fringes of the Siyah River (Gader) and about 10 km south of the city of Ushnuyeh, in northwestern Iran (Fig. 1). This site is situated at the feet of the Zagros Mountains in entrance of Hasanlu- Kelishin corridor, one of the famous routes in 1st B. C in the northwest of Iran. In the Kelishin pass there are three Urartian steles, Merga Karvan in Iran side, kelishin stele, located in the Iran-Iraq border on the road towards the region of Rawanduz and finally Topzawa stele that located in Rawanduz in the Iraq side. This route ending to Musasir temple, that why called holy route (Khatib-shahedi 1998).

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[1]I would like to thank H. Khatib-Shahedi, K. Mollazadeh and S. Basheri for their valuabe helps.
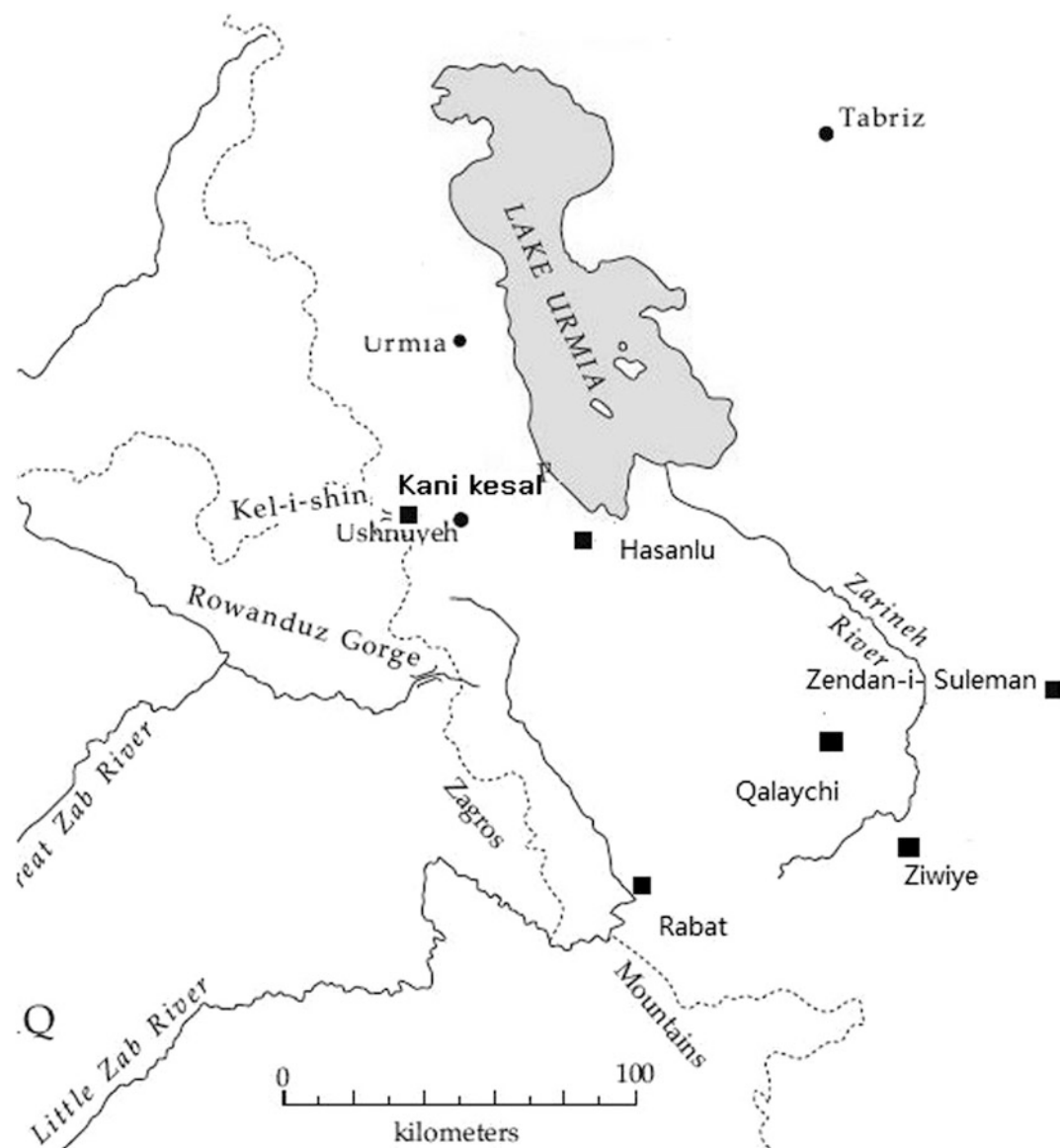
Fig. 1 Location of Kani kisal in north-western Iran

Kani kisal the ancient site located in the entrance of the strait. This site attributed to Urartian Period, Klisse called it *Kaniki Zar*, Khatib-shahedi introduce it Kani kisal which control function in entrance of Kelishin pas. In archaeological research Italian-Iranian team in 1976, mentioned this site by title Grd-e-Kisal and dimension 70 × 39 × 15 m (Salvini et al. 1976: 21) (Fig. 2).

Also Pecorella and Salvini surveyed sites in the Ushnuyeh valley, mentioning to the Grd-e Qisal as no. 6. (Pecorella and Salvini 1982: 28).

In recent years a local villager digging in western foothill for preparation foundation of building, appears to have been a grave and some of metal works and pottery sherds, and brought the objects to local heritage officials (Fig. 3). Unfortunately, when I visited the site, it was completely

Fig. 2 Kani kisal hill
(Salvini et al. 1976: 21)
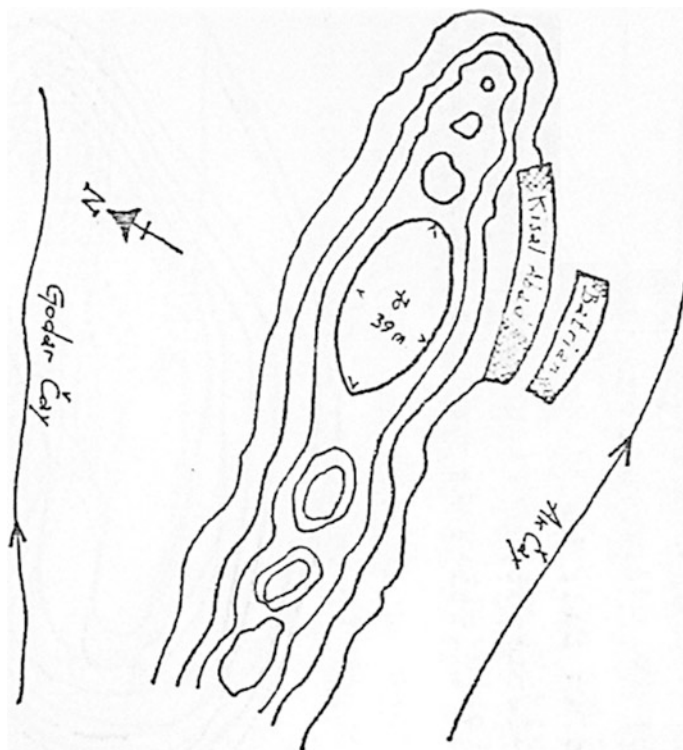
destroyed. According to the explanations owner, objects were obtained from stone graves.

3 Objects

Recovered objects are including iron and bronze warfare, bronze and iron vessel, horse bits, jewelry, pins and belt fragment (Fig. 4).

4 Warfare at Kani Kisal

Daggers, arrowheads and spears more recovered warfare at Kani kisal.

5 Dagger

20 pieces of iron dagger have been obtained, that intensely rusted. The largest remaining size is about 24 cm (Fig. 5). The daggers were made up of some pieces.

In the existing blades, the blade is attached with a sharp tip to the hilt and possibly fixed with a rivet. Flanged hilted daggers and swords have a wide distribution in the Near East, in Syria, Anatolia, Egypt, and Mesopotamia, beginning sometime just before the middle of the second millennium B.C. (Muscarella 1988: 55) in Iran reported from Chogazanbil, Lurestan, Godin and Giyan, that belonged Iron Age I and II.

Kani kisa daggers similar to those from Hasanlu (Thornton and Pigott 2011, 160, Fig. 6.22; Muscarella 1989: Fig. 5b), that The late nineteenth century B.C. were proposed for them.

6 Spears

5 spears were found in the site, which are almost complete. Four of them made of bronze and one of them made of iron. The iron spear was in fragments, but bronze examples were a complete. Their size varies from 21 to 29 cm. All the spears from Kani kisal have a midrib and some have
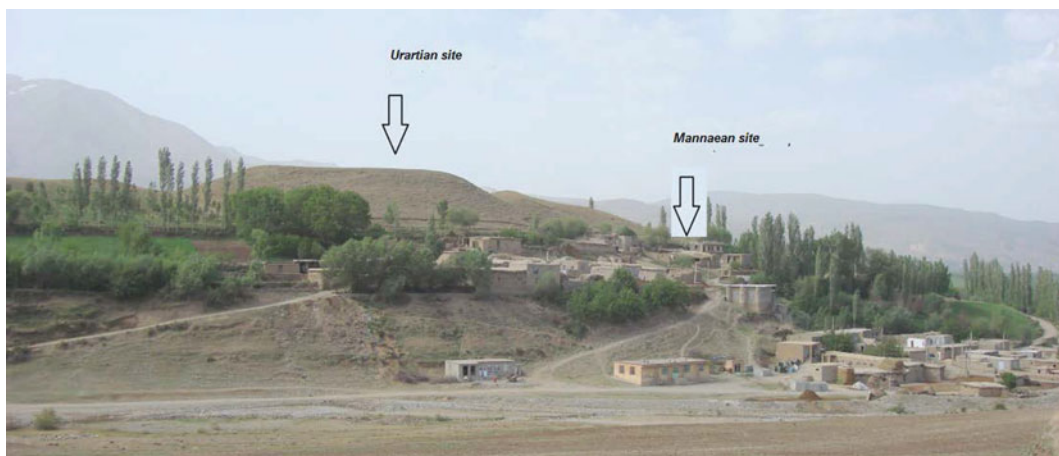
Fig. 3 Location of Urartian and Mannaean settlements in the Kani kisal

Fig. 4 Some metal objects from Kani kisal

holes at the socket end, but the angle of midrib and amount of them is different.

Kani kisal spears similar to those from Hasanlu (Muscarella 1989: Fig. 2a, b; Thornton and Pigott 2011: Fig. 6.16), Bayazid Abad (Khanmohamadi 2011: 72; Fig. 13) and also Caucasian region (Tsetskhladze 2005: 442, Figs. 3, 8).

7 Arrowheads

10 Arrowheads of iron and bronze were found at the site. They vary in size and shape, two of its made of bronze and eight of it made of iron. These have a flat blade with two cutting edges

Fig. 5 Some iron daggers
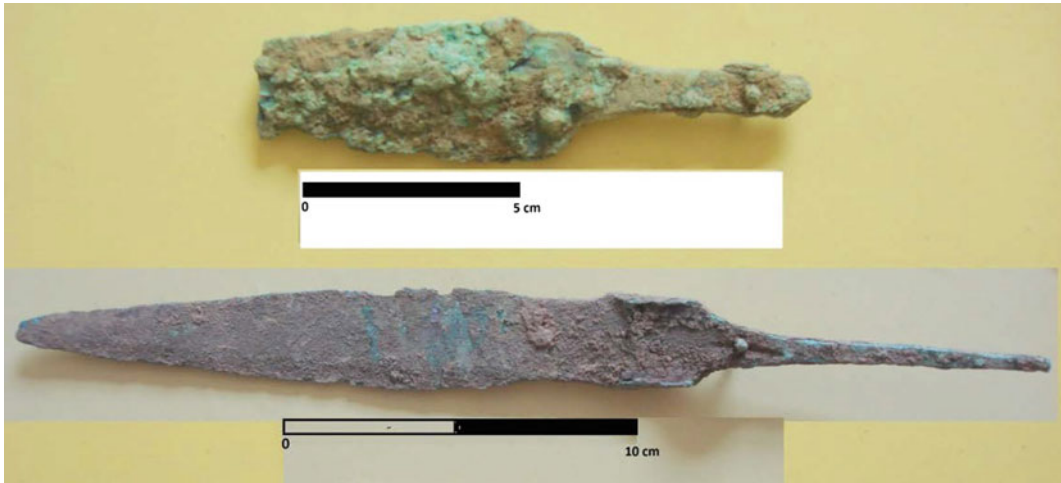
Fig. 6 Two sample of arrowheads

and a hollow socket (Fig. 6). Similar examples seen at Hasanlu (Muscarella 1989: Fig. 7b–d) and Agrab Tepe (Muscarella 1973: Fig. 27 a, b), Fig. 6. Show two sample of arrowheads.

8 Horse Bit

One number of horse bits was found at the site. This bit having two canons joined loosely at their inner ends by intertwining loops. Flexible bits were first made in the second millennium

B.C. but are not commonly recorded for several centuries until the ninth century (Muscarella 1988, 64) similar to this of bit was recorded at Hasanlu (De Schauensee 1989: 43, Fig. 10).

9 Metal Vessel

Among the metal objects, there is one bronze bowl, this round bowl with slight omphalos, without handle and decoration (Fig. 4-2). Similar

Fig. 7 Bucket/vessel handle
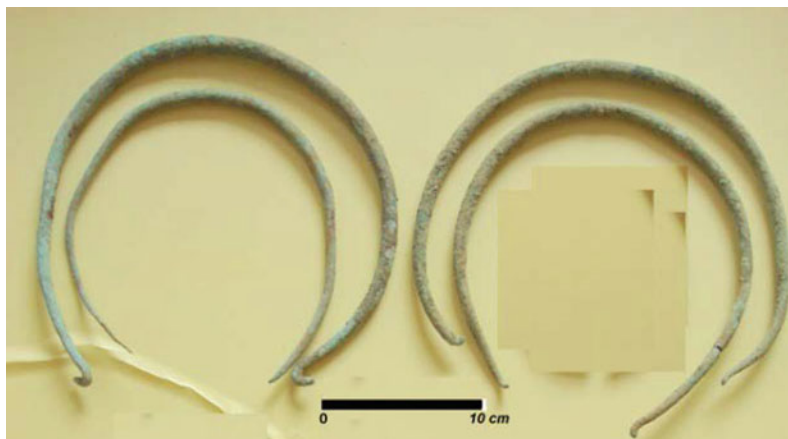
example recorded from Hasanlu (Muscarella 1988: 31 Fig. 11) and Kul Tarike.

A number of iron ladles were recovered at Kain kisal, this ladle with pouring spout and straight handle, which is at right angles to the spout (Fig. 4: 1). Similar to this from Hasanlu recorded (Muscarella 1988: 32, Fig. 12).

Also more than 10 number of bucket/vessel handle recovered at the site, all of made bronze and are simple. End of handles are S type (Fig. 7).

10 Ornaments Objects

More metal recovered objects were ornaments, which made of bronze and iron. Different types of bracelet, pins and rings are examples of this collection.

11 Simple Bracelet

More than 25 Simple bracelet which made of bronze and iron were found at the site. They were corroded together, their diameters range from 6 to 10 cm. End of bracelets are open and in some cases, close together (Fig. 3, no 4). Similar examples were found at some iron age sites like Hasanlu (Muscarella 1988: Fig. 23-27) and Qabrestan cemetery (Fazeli and Naqsheneh 2006: 144; Fig. 4-13).

12 Bracelet with Knobbed Decoration

There are two Bracelets with knobbed decoration, decoration one of them is fine and other one is more visible (Fig. 8; 1-2). At Hasanlu (Fleming 2011: 33, PL. 5.51) and some of Iron age sites those Bracelets were recorded.

13 Sheet Metal Bracelet

There is one type of bracelet at Kani kisal. The Bracelet in the shape is semicircle, which the width is reduced gradually toward both ends. Diameters range from 7 to 8 cm and its width is 4 cm, end of bracelets are open (Fig. 8; 3). Similar examples occur at Hasanlu (Muscarella 1988: 33) and Kul Tarike (Rezvan and Roustaei 2007: 174 pl.16.b).

14 Rings

30 number of simple and knobbed decoration were found at the site. All objects made of bronze and some of them were broken (Fig. 4; 7). Similar examples excavated at Hasanlu (Muscarella 1988, 35: Fig. 22), Luristan (Overlaet 2005: 20, pl.1;3) and Bayazid Abad (Khanmoham-adi 2011: 72; Fig. 7).
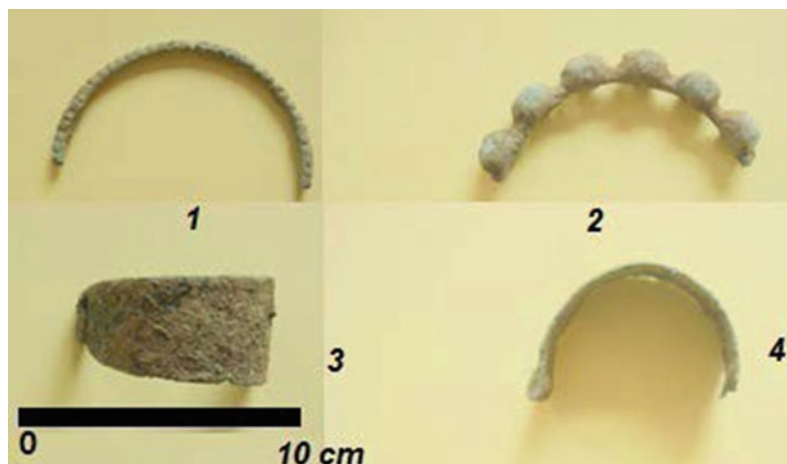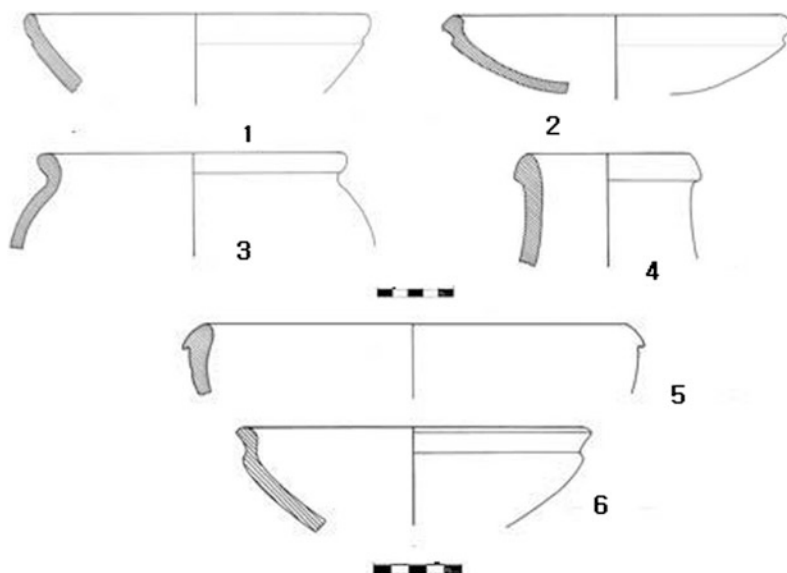
Fig. 8 Different types of
bracelet

Fig. 9 Pottery sherds

15 Straight Pin

Ten pennies have been recovered at Kani kisa.
Their Diameters range from 20 to 25 cm and all
made bronze. The end parts of these pins are
simple and sometimes they are decorated with
striped lines. Similar examples excavated at
Hasanlu, Bayazid Abad (Khanmohamadi 2011:
72; Fig. 9), Haftavan tepe (Burney 1972: pl. V),

Kordlar (Lippert 1979) and some Iron Age
sites.

16 Fragments of the Belt?

One fragments of bronze sheet decorated,
reconstructed, its fragment add up to a length of
ca. 7 cm and Its body is 6 cm wide. It looks like
a very small part of the remaining belt (Fig. 4; 5).

Fig. 10 Glazed jar and bowl

17 The Pottery

The pottery assemblage of Kani Kisa consisted of 2 complete vessels and some sherds (Fig. 10). Kani kisal potteries based on surface color classified into 3 groups; buff ware, red ware and glazed ware (Fig. 9). Those types pottery excavated at Iron Age III sites. Pottery sherd no. 1 is parallel with some Qalaychi pottery sherds (Mollazadeh 2008: 122, pl. 8, 16), examples no. 2 were found at Kul Tarike (Rezvan and Roustaei 2007: 182, pl. 24; 7) and Qalaychi (Kargar 2004: 244, Fig. 15), no. 4 comparable with potteries from Zendan-e-Suliman (Thomalsky 2006: 248, abb 14; 15) and Qalaychi (Kargar 2004: 244, Fig. 15), no. 5 example recorded at Zendan-e-Suliman (Thomalsky 2006: 236, abb 5; 4) and pottery sherd no. 6 parallel with examples of Kul Tarike (Rezvan and Roustaei 2007: 180, pl. 22; 18), Zendan-e-Suliman (Thomalsky 2006: 239, abb 7; 4), Qalaychi (Kargar 2004: 243, Fig. 14) and Bakrawa in north of Iraq (Miglus et al. 2011: 167, Tafel 1, g).

One complete glazed small jar was founded at the site. The entire outer surface and part of the inner surface to middle of the neck is covered with glaze. The body of jar is decorated with petal flowers. This type jar was found at Kul Tarike (Rezvan and Roustaei 2007: 184, pl. 26; 13), Changbar (Naqshineh et al. 2012: 113, Fig. 4: 2), Ziwiye and north Mesopotamia.

18 Dating

The assemblage of Kani Kisa consisted of metal warfares, ornaments and functional objects and complete vessels and some pottery sherds. As mentioned above, as seen from artistic style, the uses of these types of objects wide range of Iron Age, from the second millennium B.C. to the first millennium B.C.

There is hardly any iron metallurgy before the eleventh century B.C., but to a large extent thereafter (Pigott 1977). So Kani kisal belonged to after the eleventh century B.C. Also metal objects from the site are similar examples of Iron Age II and Iron Age III, which excavated at Hasanlu, Bayazid Abad, Dinkha and Tachin Abad. Pottery finds are parallel with Mannaean pottery and not resemble to Urartian samples. According to the above, this site can be attributed to Mannaean.

19 Discussion and Conclusions

Ushnuyeh and Solduz valley are interconnected and sometimes it is called Oshno-Solduz. In Iron Age this area one of the important region of Iran. In addition to included settlement sites and castles, there are many of different type of cemeteries. In result of civil activities cemeteries of Bayazi Abad (Khanmohamadi 2011) and Tachin

Abad (Khanmohamadi 2014) have been discovered and investigated. Urartian have been wide presence in this area, Hasanlu, Aghrab Tepe, Qalatgha are famous Uratian sites in Oshno-Solduz valley.

Inscription documents like Kileshin Stele, Merge Karvan and Topzava in the western of Kani kisal are Evidence of Presence Urartian at least 820 B.C. in this area. Due to the tenor of steles, this pass ended to holy temple of Musasir.

This site attributed to Urartian Period in the past, as the result of civil works some Mannaean material culture was found in recent years. One of the most interesting problems is the relation between the Urartian material culture and Mannaean material culture. In the end of ninth century B.C. Urartu was expanded in this area until 714 B.C. For almost 150 years, from the middle of the ninth till the end of the eighth century the Urartian areas in Iran were not attacked any more by Assyria. It was only during the reign of Sargon II of Assyria that Urartu and Assyria clashed in Iran again. The reason was that Urartu interfered more and more in the affairs of the kingdom of Mannea, which Assyria considered a tributary (Kroll 2011). Sargon II's eighth Campaign, 714 B.C. into the region resulted in intensive defeat of Urartians which ended the Urartian dominant on the eastern, southern and western regions of Urmia Lake and they just dominated the north of the Urmia Lake. The first half of the seventh century is when Mannaean seized the power in that area, the time during which it was expanded more than ever, and Oshno region was dominated by Mannaean. After this period Mannaean control this regain.and Kani kisal that was Urartian site (the end of 9 to ends 8 century B.C.) after 714 B.C. southern foothill occupied by Mannaean. Of course, how and period them presence in this region require more research.

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The European Connections of the Median Period

Géza Szabó

Abstract

The rise of Media, i.e. the period between the reign of Deioces (728–675 B.C.) and the takeover of Cyrus II (550 B.C.) has a crucial significance even from the point of view of the history of Europe. Ancient sources indicate that groups of peoples migrated from its area even to Europe, therefore it had a direct impact on the course of European history as well. According to Herodotus, the Sigynnae people, who lived on the other side of the Istros river, the present-day Danube, had moved next to the neighbouring Veneti people from the area of Media. The Median Empire was forming just at the time when, as part of the orientalising period between the eighth–sixth centuries B.C., elements of Ancient Eastern origin started to appear first mostly in the western basin of the Mediterranean (Iberia, Italia), then in the inner regions of the continent as well, the scope of which has far exceeded the objects that had been imported. One of the most striking manifestations of the power of the new elite and the transformation of the social structure was the building of the Giant Tumuli. The tumulus excavated on the Strupka-Magyar estate in Regöly, found in the south-eastern part of Hungary is yet the only one in Europe which can be directly related to the area of the Median Empire, based on both the observed phenomena and the written sources. The occurrences of new technologies within Europe, in the centre of the people in current-day Regöly whom were called the Pannonians by Roman Age sources, the continued production of various types of pottery originated from the Ancient East, the apparently new customs and the socio-structural changes reflected in the tumulus and the structures of settlements are all important additions for the deeper understanding of the orientalising processes. More and more data indicate that the constant conflict situation that developed due to the rivalry between the Medes and the Lydians during the second half of the seventh century B.C. and affecting almost the entire Ancient East, had a determining role in the orientalising process of Europe.

The rise of Media, i.e. the period between the reign of Deioces (728–675 B.C.) and the takeover of Cyrus II (550 B.C.) has a crucial significance even from the point of view of the history of Europe. Due to its alliance with the Cimmerians and Babylon, its fight and eventual victory

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over Assyria and the Scythians, and its acquisition of the Urartu territories, Media is a conveyor of the traditions of that area—a peculiar link between the cultures of the Ancient East and the horse peoples of the steppe (Ivantchik 1999, 2001; Козаев 1998). Ancient sources indicate that groups of peoples migrated from its area even to Europe, therefore it had a direct impact on the course of European history as well. According to Herodotus, the Sigynnae people, who lived on the other side of the Istros river, the present-day Danube, had moved next to the neighbouring Veneti people from the area of Media (Herod. V. 9; Szabó and Czuppon 2014: 50–51; Fekete and Szabó 2015). The Median Empire was forming just at the time when, as part of the orientalising period between the eighth–sixth centuries B.C., elements of Ancient Eastern origin started to appear first mostly in the western basin of the Mediterranean (Iberia, Italia), then in the inner regions of the continent as well, the scope of which has far exceeded the objects that had been imported. A new world was coming to Europe with all its illustrations of fantastic creatures, as well as fables, myths, craft techniques, beliefs and the science of medicine, which were all part of the transmission of eastern knowledge (Hansen 2017: 225). One of the most striking manifestations of the power of the new elite and the transformation of the social structure was the building of the Giant Tumuli. These new means of displaying power both in their structure and symbolism can be found throughout an enormous area from Italia, northern Greece, western Anatolia, northern Pontus and the northern Caucasus as far as Siberia (Fig. 6g–i). All of these indicate that the area between eastern France and the Caucasus formed a much stronger system of relations with the cities and centres of power of the Mediterraneum, Anatolia and the Middle East than ever before (Hansen 2011: 293). However, regarding the interpretation of the background and the content of these relations, research is heavily divided. The fundamental question is whether this orientalisation signifies only the trade of eastern objects, luxury articles, and the radiation of trends, customs and patterns (Kromer 1986; Metzner-Nebelsick 2000;

Teržan 2005, 2012; Potrebica 2008), or whether there are historical processes and the migrations of larger and smaller groups of peoples behind this phenomenon. One part of research emphasizes the importance of the further development of the local Late Bronze Age traditions (Pallottino 1980; Torelli 2000; Brosseder 2004; Metzner-Nebelsick 2002), whereas the results of international interdisciplinary research of recent years rather indicate the significance of the influences coming from Asia Minor, occurring simultaneously with the spread of the knowledge of iron processing.[1] The tumulus excavated on the Strupka-Magyar estate in Regöly, found in the south-eastern part of Hungary is yet the only one in Europe which can be directly related to the area of the Median Empire, based on both the observed phenomena and the written sources. For this reason, I intend to review this issue from the point of view of the actual objects recovered at the site, the observed phenomena and the research results of recent years. My goal this way is to assist the research in forming a notion which is more realistic and differentiated.

Hungarian research has already noticed earlier that there may be objects among the Carpathian Basin finds which indicate relations to the Median area as well. The bronze statuette found in the southern part of the Great Hungarian Plain, at Sarkad, being compared to the female statues found in the 7th and 74th graves of the cemetery Tepe Sialk B, lying in the area of former Media and present-day Iran, is considered to be of eastern origin (Kemenczei 1990: 40, Fig. 1). This cemetery is dated back to the eighth century B. C., and the use of the three-holed bronze bridle cheek-pieces and the ringed strap-distributor found there was also observed from the Caucasus through the North Pontus region to as far as Central Europe (Metzner-Nebelsick 1994, 2002). It is based on all these that the Sarkad statuette is dated within the pre-Scythian period to the eighth century B.C. and classified among the

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[1]See: Fekete (1986), Harding (2005), Teržan (1998, 2004, 2005, 2012), Potrebica (2005), Thür (2007, 2012), Szabó and Fekete (2011), Hosszú (2017: 227, Fig. 3), Adrados (1989), Brisighelli et al. (2009), Бруяко (2005: 260), Szabó (2013: Fig. 5).

Cimmerian-related finds (Kemenczei 1990: 41). Also in Sarkad, other finds were found a little farther away from the statuette's location: three-pipe bridle cheek-pieces and reticulated horse-harnesses of similar age, as well as fragments of radial fluted bronze phialae, which are of completely different shape than those that were found in the Carpathian Basin (Gyucha 1996). The radial fluted metal (often gold or silver) phialae and the shapes derived from the variations of those, also known from the Hasanlu site in Iran, and common in the Urartu, Assyrian, Phrygian and Lydian territories as well—and therefore subsisting for a long time—are parts of a royal tableware set Young 1981: Pl. 68–70; Metzner-Nebelsick 1994: Abb. 12; Мелюкова 1979: Рис. 42.). The variations of the three-pipe bridle cheek-pieces and the parallels with some part of the strap-distributors observed in a wide ranging area from the Caucasus to north Italia (Hase 1969: Abb. 8.9; Bologna San Francesco: Hase 1969: 25. Abb. 12; T. 11., 121; Metzner-Nebelsick 1994: Abb. 2; Szabó 2015: 343–344) are mostly found in the Carpathian Basin among its seventh century B.C. finds, but their use is apparent even in the sixth century B.C. (Gyucha 1996: 76). The horse-harnesses—said to be Eastern-Carpathian that spread from the Caucasian-steppe region during the ninth–seventh centuries B.C. are considered, based on Teronozkin, by most of the research to have been produced by a population belonging to a branch of the confederacy of Cimmerian tribes arriving from the east, and moving north of the Black Sea (Тереножкин 1976: 186, 207–208; Metzner-Nebelsick 1994: 383–447). They presume that it is these people who have settled in north-eastern Hungary, called the Mezőcsát group, whose locally developed and manufactured products appeared during the eighth century B.C., in north Italia, and also in Lower Austria according to the Stillfried finds (Patek 1982a, 1982b: 28–29, 1990: 61–118; Hase 1969: 39; Kaus 1988–89: 257). It is apparent from the data that the radial fluted phialae occurring in Europe, the shape of which also suggests an Ancient Eastern connection, are often recovered alongside artefact types that were still in use in the seventh century B.C.,

which makes their dating within the eighth century B.C., rather to the end of it. This is important for the reason that according to our knowledge based on historical data, just at the time, around 720 B.C. one branch of the Cimmerians crossed the Caucasus and overrun Urartu, destroying the northern and western parts of the country. They obviously plundered many treasures there, and based on the network of the particular finds they have left, covering the eastern and central parts of Europe, and even due to their connections, they could have been one of the first overland conveyors of the artefacts and culture of the Ancient East beside the Greeks (Makhortykh 2008). However, this research only covers the Cimmerian-related finds in Europe that are traceable through land as far as Italia or Scandinavia, as well as which can be dated to no more than a narrow period of this region, and those artefacts without replacements, indicating an early part of a longer, multiple-stage process.[2]

We have already presumed based on the parallels of the finds emerging from the tumulus excavated in the south-Transdanubian part of the Carpathian Basin, on the Strupka-Magyar estate of Regöly in 2011–12, that those have a close relation to the southern branch of Cimmerians, who started off from Central Asia in the eighth century B.C., then crossed the Caucasus, and moved through Urartu and Phrygia, but who had also been under Median authority (Szabó and Fekete 2015; Szabó and Horváth 2016). Looking at the finds from the Iron Age tumulus of Regöly, it was evident at the first sight that they provide a unique connection between the great cultural circles of that age (Szabó and Czuppon 2014: Fig. 1). One part of the pottery finds features the general Central-European forms also typical of the end of the Hallstatt C period, characterised by the conical-necked, large urns, often bearing cannelura decorations (Vadász 1983; Fekete 1985, 1986; Szabó and Fekete 2011: 16. table 2). However, alongside them other pots were also

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[2]See: Metzner-Nebelsick (1994), Composit helmets: Vaskeresztes, Budinjak, Sotto la Rocca-Lippi. Fekete (1981: 144, 14. Figs. 6–7, 10–11); Rendic–Milocevic (2004: 217–222); Szabó (2015: Fig. 8); Bottini et al. (1988, 217–218).

found of particularly high quality with very thin sides, radial fluting, as well as pots with ledged rims for the cover, which were yet unknown in Europe at the time (Fekete and Szabó 2015: Fig. 4; Szabó and Czuppon 2014: Fig. 7–8.) (Fig. 1a). As it also appears from the previously mentioned Sarkad finds, the radial fluted phialae were already present among the luxury articles from the eighth century B.C. in the foregrounds of the Caucasus and the Carpathian region (Metzner-Nebelsick 1994: Abb. 12; Gyucha 1996). However, the particular variant of ceramics which indicates their usage becoming common, only appeared in Europe among the Regöly finds dated to the last third of the seventh century B.C. Featuring incredibly thin sides, and mostly burnt to black, reddish, orange or brownish, the bucchero-type pottery found in Regöly signals an extremely high technological knowledge, surpassing the contemporary Etruscan phialae, regarding both their material and thickness of wall, which excludes the possibility that they were imported from Italic territories. Parallels of form clearly point towards Asia Minor, and especially Phrygia (Sams 1994: T. 51. 338). Its glass version (RHK10.1) parallels are known from Hallstatt graves no. 502, 733 (Kromer 1959: 115; 151).

The subsisting common ceramics forms of the Ha C period and the particularly good quality fragments concentrated within two patches of building debris, among which there were ledged rim pieces as well, were also observed within the fortified settlement, which is of the same age as the excavated tumulus. These phenomena collectively call our attention to the fact that there is a new phenomenon among the orientalising influences that we have to also reckon with. As opposed to the complete change of population and culture of previous periods, here we have the traces of a development of multiple layers and stages. The objects used in the lower layers of the social pyramid have only changed in the course of a slow and gradual development, while at the top of the pyramid, the change of the special artefacts, customs and symbolisms of the elite happened quickly and extensively. This suggests that only the narrow elite at the top of the social

pyramid was replaced, but the life of the people living in the lower layers under the new rule went on with their lives almost without any changes, and the new influences got incorporated into their everyday life slowly.

The pots with an inside ledged rim (RHK4.5–7, RHK30.11) with a particular stabilising and anti-evaporating effect for the cover played a peculiar role (Fig. 1a). There were no previous instances of these in European materials of finds. The ledged rim pottery of Regöly dated to the last third of the seventh century B.C. is not only a new type of pottery, but it indicates the arrival of a population of different customs and cultural background as well. These particular pots that were used with a cover possibly for brewing some kind of herbs e.g. brewing tea—have been observed in the Regöly tumulus in a wide variety, ranging from luxury quality to roughly thinned and thick-walled versions. During the archaeological examination of one of the fine quality, nearly black fragments that is the most resembling to Phrygian grey wares (Sams 1994: pl. 227), Dóra Kürthy has identified chrome spinells within the sample. Their geochemical composition is nothing similar to that of the Carpathian Basin and its surrounding environment, however she has observed chrome spinells of very similar composition within the comparative sample coming from Gordion (Kürthy et al. 2016) (Fig. 1b). At the same time, the ledged rim pottery fragments of a more coarse quality contain mineral groups demonstrating the use of local material. All of these suggest that these particular ceramics were not only used as luxury articles, but they served the everyday needs of the people. These particular potteries are only archaeologically tangible indicators of the new eating and drinking customs, which had taken root within the Carpathian Basin. Meanwhile, the ceramic examinations clearly prove that for the reason of satisfying the continuous demand, these special pots were also supplemented by using local materials.

Among the horse harnesses and weapons found in the Regöly tumulus one of our most important finds was the cross- shaped strap-distributor (RHF1.1) (Szabó and Fekete 2014:
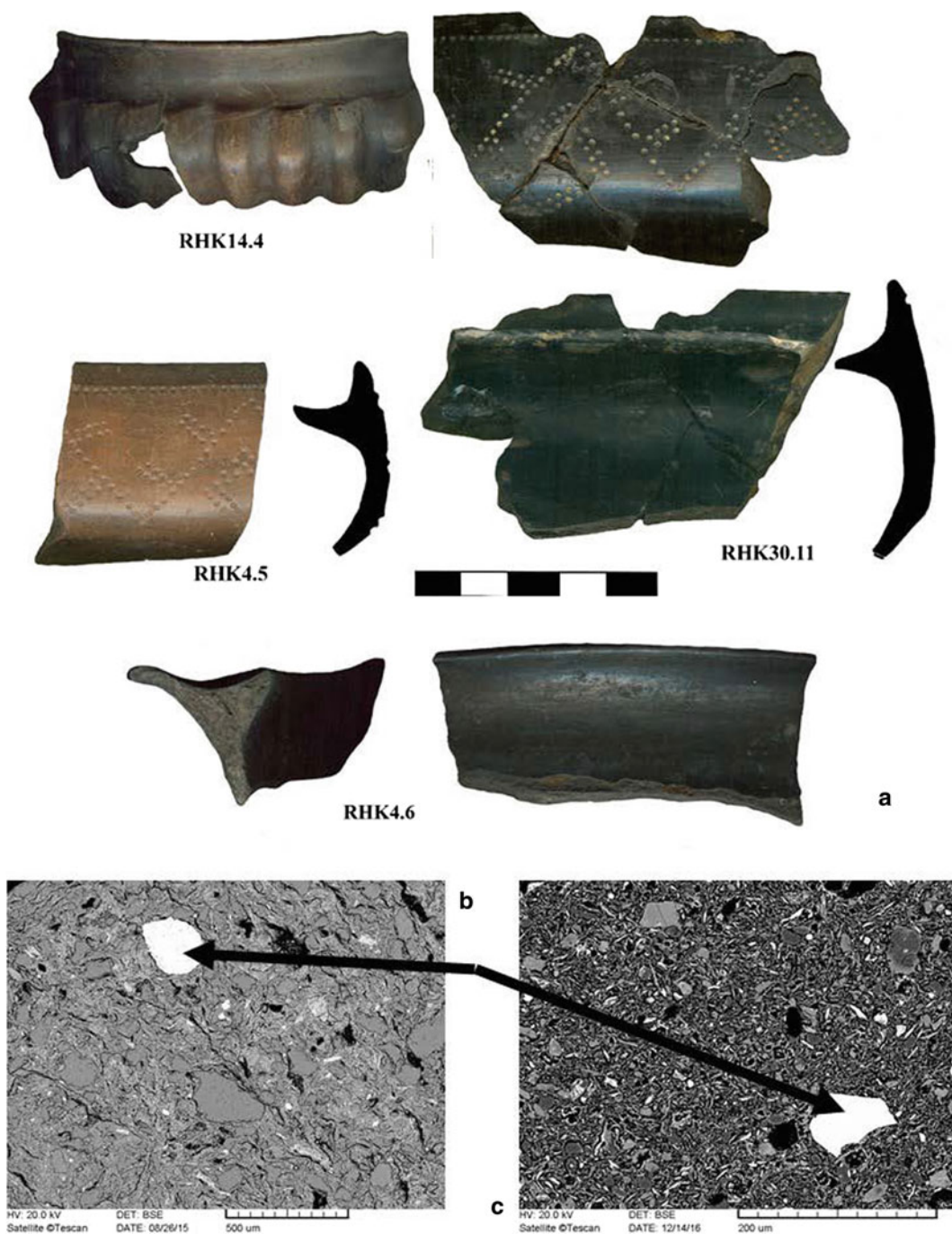
Fig. 1 **a** The radial fluted pottery and those with ledged rims for the cover (Regöly, Strupka-Magyar estate). The polished section of a pottery fragment (RHK4.6) found in Regöly, with chrome spinells within its base material. The polished section of a control sample from Gordion, with chrome spinells inside (**b**, **c**). By couretsy of Dóra Kürthy

Table 113) which is identical both in its asymmetry and size with the artefact that was found east of the Aral Sea, in the 83th kurgan of Ujgarak dated back to the seventh–sixth century B.C. and considered to be of Saka origin.[3] The widely used trilobite bronze arrowheads are the best known part of the weaponry and the occurrence of which within the Carpathian Basin is generally considered to be related to the Scythians (Hellmuth 2014). However, in Regöly, alongside the bronze arrowheads there were also notched iron arrowheads (RHF113.6–27) found, that are missing from the Scythian remains, but are known along with the iron scale armour plates from the Ancient East (Horváth and Szabó 2015: Fig. 3; Szabó and Czuppon 2014: 51). The data indicate that both the scale armours of Regöly—dated to the end of the seventh century B.C.—and the similar Jalžabet scale armours (Šimek 2004: Fig. 27) are related to a people who had direct connections with Asia Minor (Fekete and Szabó 2015). The same is also suggested by the fact that Mária Fekete also found based on the helmet fragments,[4] another important element of the armours, that in Regöly the helmets were made of bronze and iron as well (Fekete 2016). Based on the helmet cheek pieces, they had probably belonged to one of the early pieces of conical iron helmets that were made in the Late Hettita period, but we cannot rule out the possibility that it was of the "proto-Spangenhelm" type, found near the Old Smyrna, which must certainly be in use around 600 B.C. (Cahill 2010: 564) (Fig. 2) Moreover, the archaeometallurgical examinations of the Regöly finds indicate the local metallurgy of iron and a highly advanced level of iron work that were adequate for producing most of the artefact types that were found at the site (Fig. 3). The iron bloom examined by Péter Barkóczy contained both manganese and phosphorus (Fig. 4e, f), which are typical companion materials of

Southern Transdanubian ore sources, giving evidence that the processed iron ore was of local origin. Looking at the polishing of the mass produced carriage parts or the excellent quality scale armour plates, you can clearly see the thoroughly worked, folded layers of the material (Barkóczy et al. 2017) (Fig. 4g–h). For the time being, there are no such data that would explicitly indicate either earlier knowledge of iron working technology, the local production of iron objects, or their use in similarly mass quantity within the Carpathian Basin. The nearest data of iron metallurgy of the same age as the Regöly tumulus finds is the smelting pit of the Dolenjske Toplice site located in the Krka river valley, Slovenia, used for the smelting of iron ore (Dular and Križ 2004). The iron bloom of Regöly as well as the mass production and usage of iron objects do not only give proof of unprecedented local metallurgy, but they must inevitably indicate the start of a new period, that is the Iron Age, behind which was clearly the advanced technological innovation of the Ancient East.[5]

Almost one third of the Regöly finds were bronze artefacts. Previously, a kettle with double cross-shaped staples was found there as well, assembled from mass-produced parts and apparently exceeding the general level of metallurgy of the European Late Bronze Age (Patay 1990; Szabó 2013) (Fig. 4a). Parallels to this were recovered extensively in the Scythian Age-Great Hungarian Plain (Ártánd: Patay 1990: 32), the area of the Hallstatt culture in Moravia (Býčí skála: Parzinger et al. 1995: T. 39), as well as in Austria[6] and Germany.[7] This type is a whole new phenomenon in the area of the Hallstatt culture, regarding both its shape and its usage, which is closely connected to the burial rite of the elite (Prüssing 1991: 69, 72; Parzinger et al. 1995: T. 39). According to the measurement data, mass produced kettles made with identical set of tools and belonging to the same group of workshops

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[3]See: Demigyenko and Firszov (2009: 42, 45); RHF13.1: Parzinger (2006: 219., Fig. 16, f).

[4]See: RHF4.26: Szabó and Fekete (2014: Table 117, 14–15); RHF6.4–5: Szabó and Fekete (2014: Table 119. 6. 4–5).

[5]See: Pleiner (1980); Tylecote (1987: 176–178, Fig. 5.21).

[6]See: Hallstatt Grave, 671, 696., Pfaffstätten, Helpfau-Utterdorf, Kleinklein: Prüssing, 1991.

[7]See: Heuneburg Gießübel-Talhau: Krausse et al., 2016, Fig. 112.

Fig. 2 Bronze and iron helmet fragments (Regöly, Strupka-Magyar estate) and their possible reconstructions
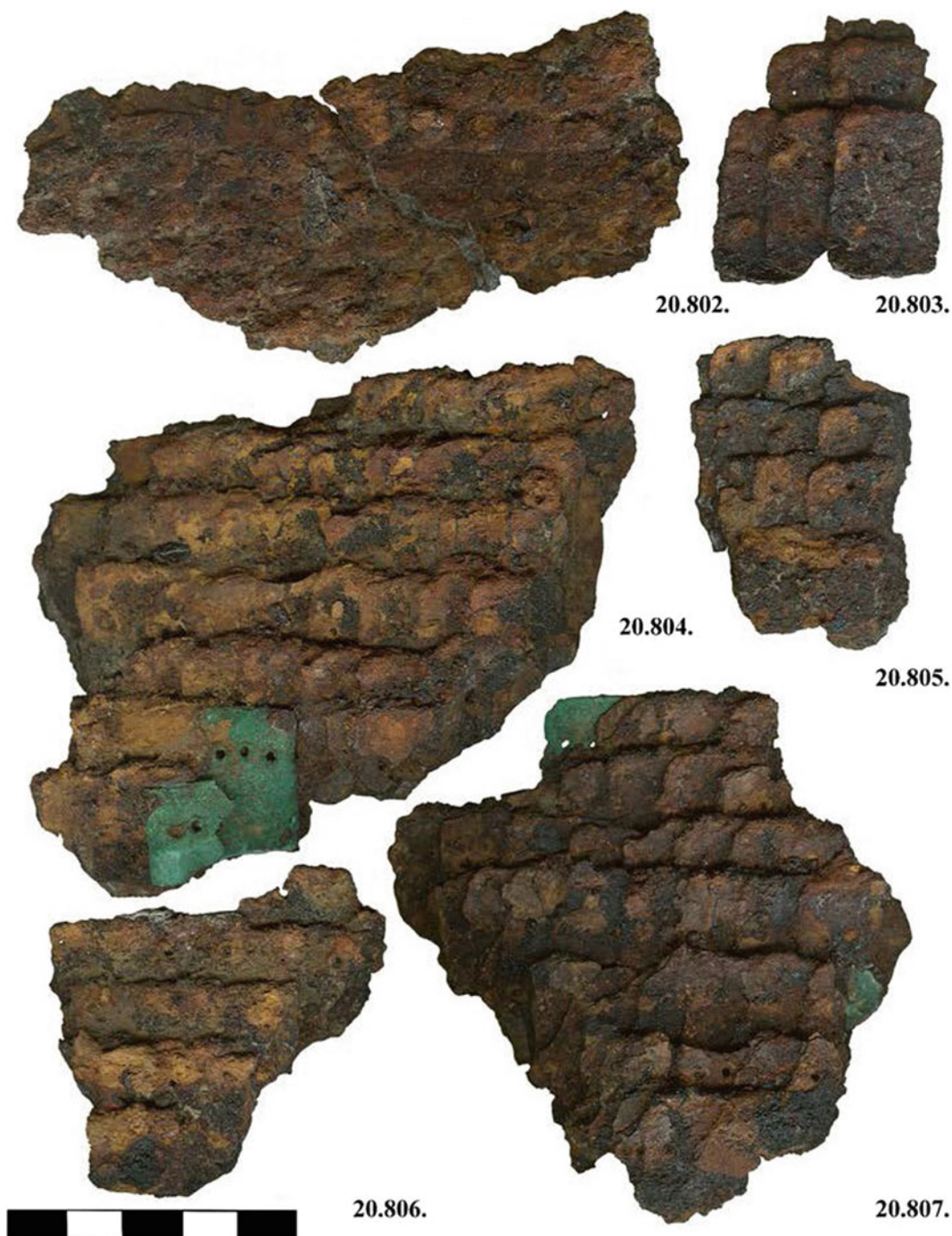
Fig. 3 Scales on an iron armour (Regöly, Strupka-Magyar estate)

were found in the greatest number in the area of the Northern Balkans, inhabited by the Veneti people—according to Herodotus—that is current-day Slovenia (Szabó 2012: Fig. 5, 2013: 296). This type of artefacts was discovered in the greatest number in the cemetery of Sticna, and
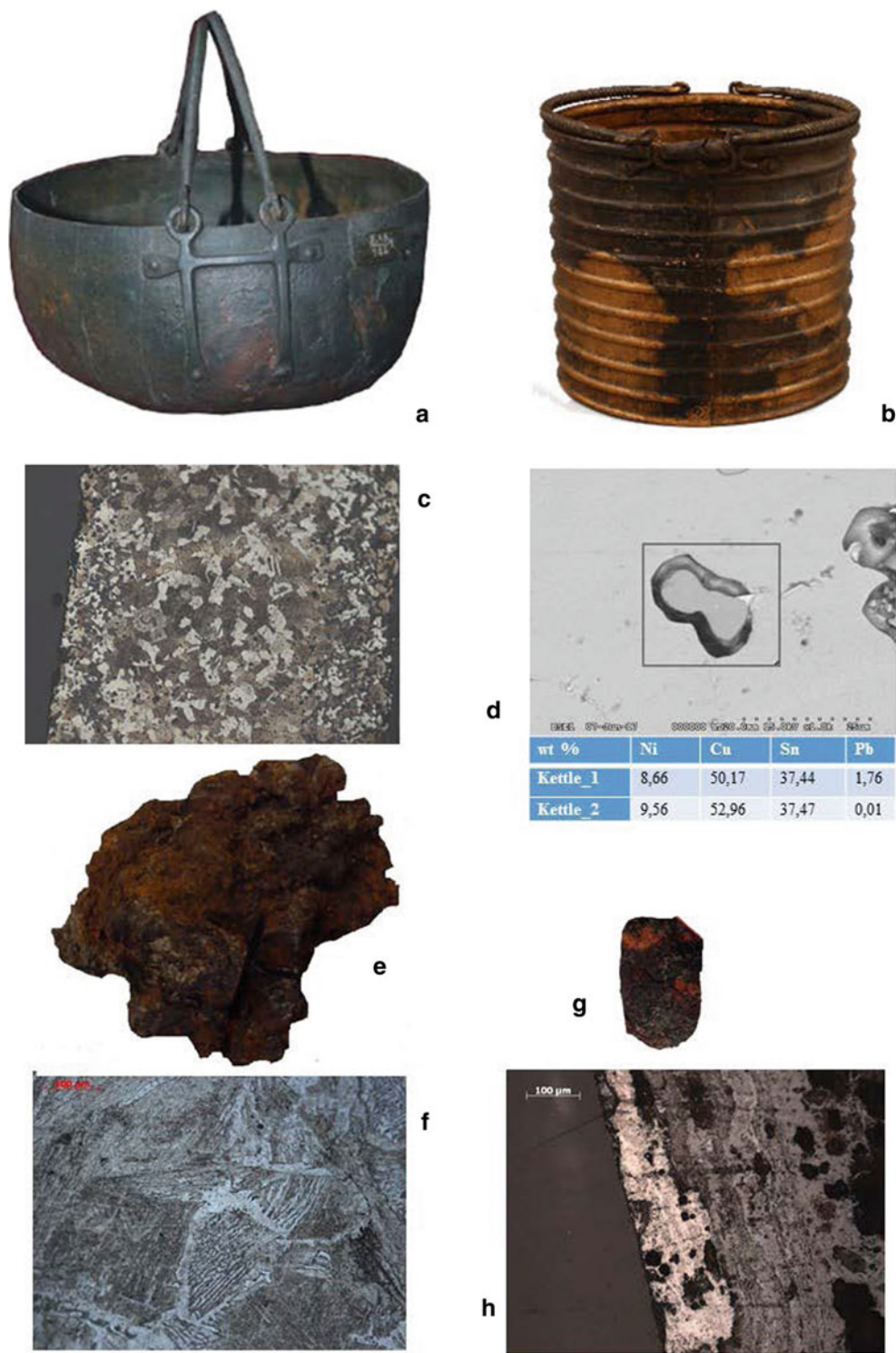
Fig. 4 **a** Kettle (Regöly 1907). **b** Cista (Kurd 1885). **c** The casted, annealed and hammered lattice structure of the kettle's piece **d** Sn-Ni rich stage in the kettle's base material. **e**, **f** Iron bloom and its section. **g–h** Iron scale armour plate and its section

within a radius of no more than 60–70 km from the site (Dolenjske Toplice, Grize, Gorenja vas/Sv. Lorenc, Prebold, Libna Planinc-Tumulus, Magdalenska gora, Smarjeta) (Jereb 2016). Based on the other grave goods and the sources of ore, it is likely that there was a workshop operating there during the Ha D period. During the excavation of the Regöly tumulus, we found fragments of the same kettle type as well, and on one of the rim fragments a complex archaeometallurgical examination was performed. Szilvia Gyöngyösi's analyses showed that the kettle's pre-mould was cast from a tin bronze alloy of about 12% using the lost-wax process, which was then hammered from one side to reach its final form (Fig. 4c). The polished section showed Sn-Ni inclusions, indicating the direct alloying of copper with metallic tin (Gyöngyösi et al. 2017) (Fig. 4d). There are no earlier examples of similar phenomenon within the Carpathian Basin material of finds, so we believe that it is a new technological innovation which had appeared with the Regöly finds. The data we have collected so far show that despite the sporadic occurrences of tin ingots (Primas 1984) starting from the Late Bronze Age, alloying, when producing bronze, was still performed by mixing ores at the smelting phase. On the other hand, written sources and sunken ship cargoes both indicate that in the Ancient East they have already alloyed copper and metallic tin from the fourteenth–thirteenth century B.C., altogether meaning that the currently observed technological innovation was also due to eastern connections.

The mass-produced twisted ears that were used for the kettles with double cross-shaped staples as well, were also used for the bronze ribbed walled buckets "cista cordoni", and these two types of pottery were found together both in Regöly and at several other sites.[8] The cista fragments found in Regöly (Fig. 5a) were of the same type as the artefact finding which yielded yet the most, as many as 14 pieces, of this type,

discovered in 1885 at the nearby Kurd (Wosinsky 1896: 519–533) (Fig. 4b). Variants of the mass-produced cylindrical "cista cordoni" spread to the Etruscan, Veneti and Hallstatt territories of Europe relatively late, from the end of the seventh century B.C. (Patay 1990: 78; Prüssing 1991: T. 106, 327, T. 104, 322, T. 106, 326, T. 105, 325.) The primary characteristics of the Regöly and Kurd cistas are the flutes that run around them, however the pottery type itself and the technology of its production was yet unknown and unprecedented in the Early Iron Age of Europe. Other cistas in Hungary, beside the ones previously mentioned from Kurd and Regöly, were found in Vaskeresztes, and another one of unknown place of discovery is held in the Museum of Debrecen (Patay 1990: 126–127). From Italy, the cista of the Bologna-Arnoaldi site is generally known, but since then, in Central and Northern Italy other cistas have been discovered one after the other (Gozzadini 1887; Stjernquist 1967: II. Karte 1), while three others from graves 574, 660 and 769 of Hallstatt cemetery (Prüssing 1991: 325–327), Austria, two from the Bycí skála burial cave of the Czech Republic (Parzinger et al. 1995: 337–338), and altogether seven top-staples "cista cordonis" are known from the Poland sites of Bobrowice, Kluczewo, Przedmiescie and Woskowice Male. On the other hand, in Slovenia, there were altogether 21 similar cistas published from sites SvetaLucija/Most na Soci, Novo mesto Kandija-Nekropole, Novo mesto Malensek-Tumulus, Smarjeta, DolenjskeToplice, Vace, Bohinj and Bitnje (Jereb 2016: 180–200). Putting the sites on a map, it is apparent that most of the Slovenian cistas were found in the same limited area as the kettles. Beside the mass-produced staples of the same shape, this also supports the idea that the cistas of the now examined form could have been produced in a workshop that was located—according to Herodotus—in a Veneti-inhabited area,[9] and from there these were spread to the Etruscans and other peoples living inside Europe (Jereb 2016: 92).

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[8]See: Szabó (2009), Szabó and Fekete (2011: Table 39. 5); Prüssing (1991: 69. 72), Parzinger et al. (1995: T. 39); Fekete and Szabó (2017).

[9]See: Herodotus, V. 9.

Fig. 5 a Ribbed walled bucket "Cista cordoni" from the Regöly tumulus (Reconstruction). **b–c** Ribbed walled bucket portrayed in the relief found in the palace of Persepolis

a

b

c

d

e

f

RHK4.2

◀ **Fig. 6 a–c** The consequently repeated scenes of the Persepolis palace well demonstrate that the foods and drinks required for the rituals were accompanied by metal and ceramic potteries of a strictly defined form and order.

d–e Pitcher with protome in Persepolis, widely used in the Ancient East. **f** Protome fragment (RHK4.2, Regöly, Strupka-Magyar estate)

In Anatolia and among Iranian peoples the use of cylindrical, bronze cistas is common from the Bronze Age even to this day (Bilgi 2004: 86, 103; Özdem 2003: 276–279). Their portrayal in the Ancient East occurs from the ninth century B. C. in several different forms—but there are basically two types of them in a parallel relation with each other: as part of a feast or a sacral series of actions. The relief works portraying the feast held in 879 B.C. for the inauguration of the Kalhu palace clearly illustrate how the servants use the small cistas with lion head terminals to ladle drinks from the mixing pot for the guests.[10] These cistas—usually with lion-, deer-, or ram head terminals—often made of gold or silver are just as common in the graves and treasure finds of the Iranian territories as in the Gordion tumulus MM (Bilgi 2004: 110–111). The cistas from Gordion already have the circumferential flutes on them (Young 1981: Pl. 62–63; Szabó 2013: Fig. 12). Meanwhile, the helmet of Sarduri I (760–743 B.C.) currently held in the Hermitage, clearly portrays something sacral: angel-winged priests harvesting the fruits of the tree of life into the cista in their hands; maybe they are gathering the cone-like fruit of a plant that is used for brewing the sacred, soma drink in the yellowish kettles. Based on the significance of hops-brewed beer[11] and its increasing popularity during this period (Szabó 2017a, b), as well as its importance during the feasts of Indo-Iranian peoples even to this day, it occurs that it may be hops or a fruit of similar effect that they are gathering.[12] You can find similar scenes on several relief works of the Kalhu palace. The ritual themed, fixed-structure illustrations also point out that behind their use there is always a complete system of customs, a way of life and worldview. As the cylindrical "cista cordoni" constitute the closest parallel among the Regöly finds, their significance and widespread use in the Ancient East is also underlined by the fact that they are even portrayed on the Apadana reliefs of Persepolis. Looking at the audience scene, it is apparent that the people standing behind king Darius are holding ribbed walled bucket in their hands (Fig. 5b, c). Its form completely corresponds to those found in Regöly, as well as in the previously mentioned Kurd, Vaskeresztes, Slovenia, Hallstatt, Bycí skála, Poland, Bologna, etc. sites.

Most recently Svend Hansen called attention to the fact that even though burials are considered the most traditionalist area of customs, in Europe it had gone through such changes since the Early Iron Age which may very well have close connections with orientalisation (Hansen 2017). The Regöly tumulus indicates direct eastern connections not only in its finds, but also in its material, structure and ground-plan, as well as in the traces of particular customs, which we had difficulty in interpreting within the earlier framework of research. We already had to face at the very beginning of the excavation that the external part of the tumulus was built by making a stiff, tamped layer of clay, a way which was previously unknown in Europe. The same was observed during the excavation of the tumulus field near the former Phrygian capital, Gordion: it was clear already during the preliminary drillings that in several cases the wood-stone structures of the burial vault was not surrounded by soil, but a very stiff layer of clay. In the course of the excavations, tumulus P, MM and W were observed to have very clear, tamped layers of clay (Young 1981: 2–4, 84, 191). It is

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[10]See: Raczky et al. (2013: 30. 10–11); Botta and Flandin (1849: I. Pl. 76).

[11]See: Hochmichele, Tumulus 17 Grave 1: The cauldron contained unfermented honey mead (Krausse et al. 2016: 122).

[12]For the Sumerians, barley beer is considered the gift of Ninkasi, while for the Ossetian Narts, hops-brewed beer is the invention of Satana.

interesting that just like the tumulus MM, the Regöly tumulus was also about 150 m² in size, and its inner walls were made the same way from squared, dowelled timber (Young 1981: 81, 88). In the central, about 13 × 13 m area of the Regöly tumulus there were 6 rows of 9 columns, altogether 54, which held the roof. Its parallels can be found in the flat roof and internal colonnade buildings of the Ancient East, found in Altintepe, Persepolis, Godintepe, Hasanlu and Nush-i Jan. In Regöly there were also grave-sized diggings filled with stones inside the building, at the undisturbed bottom of which there were no human remains or graves in the traditional sense. There were only scattered, tiny bones among the stones (Fekete and Szabó 2017: Abb. 9). This phenomenon is only irresolvable to the European way of thinking. The Zoroastrians consider the earth as a sacred material which must not be stained—not even with the dead. For this reason, they bury their dead not in the sense as we understand it, but— even today into the so-called towers of silence, called the dakhmas, into which they put the dead on the sun, where the weather and birds do the burial. The bones are later gathered and completely destroyed. Although these are usually built on rocks, where there were none, they built the dakhma the same way by digging pits inside and lining it with stones; then onto this bed of stones were the dead laid. The archival photos and engravings of Qajar age Iran portray this type of burial exactly the same way as it might be reconstructed based on the so far excavated phenomena of the Regöly tumulus (Dieulafoy 1887: 136–137; Talab 2010: 71). Naturally, there are some fundamental differences as well: the columns of the Regöly building indicate that it had a roof as well, making it rather an artificial cave. However, this fact has only varied, but not changed the fundamental element of the cult: preserving the earth as sacred and pure. Another interesting and new occurrence is the more than 6 m deep shaft, located near the western edge of the tomb under the tumulus, which contrary to all our expectations has not contained almost any material of finds. John Curtis has brought to my

attention a similarly empty shaft at the Nush-i Jan site,[13] and another one was also observed at the Langenenslingen Alte Burg site (Krausse et al. 2016: 141–143).

In view of all above, it is evident that the connection system and the interpretation of the Regöly finds cannot be evaluated within the same frameworks as it has been so far. The tangible occurrence of the early phenomena in Regöly, and also seen at Nush-i Jan—practically all belonging to the ancient Mithra cult (Hozhabri 2014: Figs. 2–4), canonized by Darius—can in fact, based on Herodotus V.9., be connected to the peoples arriving from Median territories, who are first called Sigynnae, then later sources mention them as Pannonian-Illyrian tribes. Basically, all the material of finds uncovered in the Regöly-Strupka-Magyar estate, the results of the scientific examinations, as well as the building material and the structure of the tumulus, and the traces of customs and phenomena observed there consistently reflect the above stated fact. It made clear that in this particular case orientalisation signifies more than only the trade of eastern objects, luxury articles, and the radiation of trends, customs and patterns (Figs. 6a–f and 7a–f). There are some historical processes and the migration of smaller and larger groups of peoples in its background that are mainly fuelled by those at the top of the social pyramid, the elite and their attendance fleeing or migrating to a new land due to either economic or political reasons.[14]

The new research results of Regöly indicating a Median connection inevitably raise the possibility of re-evaluating the clay material and phenomena of several other sites. This time only two examples will be mentioned only for

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[13]Stronach (1985), Stronach and Roaf (1978), Tourovets (2014: Figs. 2–4), Curtis (2014); I would like to thank for the organisers of the Conference "The analysis of fifty years archaeological of Malayer" (Hamadan 2014) that I and my colleague Tamás Czuppon could have the opportunity to examine the Median sites on location, and I am especially grateful to John Curtis for the information he provided me personally.

[14]For example, the tradition of Tyrrhenos and his companions who had sailed from the famine-stricken Lydia to Italia. Herod. I. 94.

Fig. 7 The way the objects, motifs and iconographies had been used according to an exact order demonstrate the unity of the material and spiritual culture of the elite. **a–b** Painted meander motifs on the Gordion pottery (Sams 1994: Fig. 63). **c–e** Painted meander motifs on the Regöly pottery (RHK30.28., RHK30.84., RHK30.70.). **f** Glyph etched into the bottom of a Phialae (RHK13.107). **g** Canopy on the Bernardini situla (Palestrina, after Turk 2005: Fig. 18). **h** Canopy on an Urartu seal (after Loon 1996: Fig. 18). **i** Canopy on the relief of the Persepolis palace

illustration: not far away from the tumulus excavated there was a treasure find found at the end of the nineteenth century, known as Regöly-Szárazd, the artefacts of which were first considered to be Etruscan Imitations dated to the seventh–sixth centuries B.C., but for a long time now research rather deems it Celtic Wosinsky 1885, 1896: 593–596; Szabó 2005: 157). Based on, among other things, the decorations believed to be the youngest, which is the mask portrayals of the Gundestrup cauldron, they dated it to the second century B.C. this time again. It presumes that the silver chain, the repoussé, the golden plate beads decorated with filigree and granulation, or the round-shaped amulets were made by a Celtic master under Illyrian influence or the other way around, by Illyrian craftsmen under Celtic authority (Vágó 2015: Fig. 4. 224–225; Szabó 2005: 158). However, based on the evaluation of other finds around Regöly, as well as the seventh–third century B.C. materials of Balkan and Italic parallels in terms of form and technology, even the possibility of earlier production has been raised (Kemenczei 2012: 337) (Fig. 8a).

In the Ancient East, as well as in Greek and Etruscan territories, all artefacts of the Regöly-Szárazd site have already had their formal and technological antecedents since the eighth century B.C. Granulation and filigree technologies were known in Mesopotamia since the 3rd millennium B.C., while in the Urartu areas it had been used since the eighth century B.C., and in the second half of the next century it was already used by the Greek craftsmen as well. In Europe, the Etruscan goldsmiths particularly liked this method. Although the so-called Eastern Celtic territory have contained some artefacts made by using original technology as well, but from the middle of the third century B.C. false filigree jewellery, made by casting and additional refining instead of the original soldering, became more common there (Szabó 2005: 154). The gold and silver treasures of the Regöly finds are particularly high quality artefacts and definitely not false. For example, the mass-produced masks, imitating human heads were only soldered subsequently onto the beads that were made of two

hemispheres—their joints covered by filigree wire—as compared to the press-forged flower Imitations, filigree decorations and granulations on them. These objects could have only been produced by a craftsman who had the complete understanding of the granulation and filigree technologies (Fig. 8b–c).

Other finds of similar forms as those of Regöly-Szárazd had already been observed in the Carpathian Basin since long before the Celts. For instance, the basic form of the golden beads are also known from the Ártánd grave of the Scythian age-Great Hungarian Plain, while similar braided chain was found in Mezőkeresztes-Zöldhalompuszta as well (Kemenczei 2009: Taf. 6. 4, Taf. 32). Looking further away, you can see that the mass-produced mask-beads had already been popular since the Mycenae period,[15] but as the finds found in the Croesus's grave (560–540 B.C.) indicate, using human face portrayals on the phialae had been popular among the Lydians as well (Cahill 2010: 312) (Fig. 8d–e). Moreover, even the monarch insignia was hanging on a braid-imitating chain, but there were even Melone-shaped beads found among the grave goods. In fact, the Museum of Usak holds a complete set of tools from this period, necessary for the stamping of various shapes. The wheel amulets were also common symbols of the Sun already in the Bronze Age, but as Abaev pointed out, these had particular significance in the beliefs of Indo-Iranian peoples as well.[16]

Based on the above, the Celtic, second century B.C. dating of the Regöly- Szárazd treasure seems groundless. The finds and connections of the Regöly tumulus, as well as the Ancient Eastern, Greek and Etruscan parallels of the aforesaid golden treasure occurring since the eighth century B.C.—including both the granulation and filigree techniques and the mask portrayals as well—indicate that the golden and silver jewellery must have been produced as

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[15]See: Mykenai: Demakopoulou (1988: 218). Vedeno: Reinhold (2007: T. 245. 17, 19–22); Duvanlii: Minchev (2006: 63).

[16]See: Абаев (1949: 48, 306), Кузнецов (1984: 182), Selmeczi (2005: 128–132).

Fig. 8 **a–c** Regöly-Szárazd golden treasure (By couretsy of Hungarian National Museum and Ádám Vágó). **c–d** Finds from the grave of Croesus (560–540 B.C.) (after Cahill 2010: 312; Museum Usak)

originally proposed, in the seventh–sixth century B.C. They probably brought with themselves these golden and silver artefacts of extremely high technical quality, similarly to their special potteries, or acquired from those workshops continuing the eastern traditions. Meanwhile, their usage is probably connected to the tribes arriving from Media, whom Herodotus called the Sigynnae, and whom later sources mention as the Pannonian-Illyrian tribes.

The cista and kettle finds of the Regöly tumulus provide a link between those easily traceable chains of sites along the Danube and its tributaries which demonstrate sudden, significant changes of the Late Hallstatt sites as far as Heuneburg, Germany. One of the most striking phenomena of these changes is the erection of such enormous tumuluses as the one excavated in Regöly, which, according to Svend Hansen, have spread across the immense area between East-France and Siberia in connection with the orientalisation process starting from the eighth century B.C. In his opinion, the rich and diverse grave furniture of these portray primarily and most importantly the feast, the Mediterranean symposium. Meanwhile, the exotic objects of the graves reflect quite well how close and extensive were these long-range trade connections with the Mediterranean world. At the same time, it also brings to our attention that this relationship did not only bring imported luxury articles, but in case of the largest settlements and cities north of the Alps, also the transmission of architectural forms (Hansen 2017: 225). The systematic labour of settlement excavations, less spectacular and more time-consuming, discovered only in recent years after decades of research that at the site, which was identified based on Herodotus (Herod. II.33) as the city of Pyrene, the Heuneburg fort was in fact the centre, the "City" of a larger settlement, in which leadership, governance and craftsmen were centralised.[17] Previous excavations had already provided several finds and observations, which indicate a close relationship with the Mediterranean, such as the walls that

were built of sun- dried bricks (Gersbach 1995: 10–34). The fort did not have a direct precedent, it was erected by a newly arriving people around 630/620–600 B.C. during the Ha D_1 period, and almost half a million mud bricks were used (Krausse et al. 2016: 46–54). It is thought-provoking in itself that its walls did not only lack a precedent but also a future: around 540/530 B.C. it burnt down, and then it was rebuilt using the regular earth-stone-wood materials (Krausse et al. 2016: 91). The use of mud bricks at this site in Central Europe is unique, and it is considered as a Mediterranean influence of unknown origin, which spread over to the Greek Etruscan world only somewhat later. It is assured that it was the local craftsman who went to the Mediterranean and learned how to make mud bricks, and then brought back this special knowledge to Central Europe (Krausse et al. 2016: 55–56). Among the several cult-related phenomena that are considered uncommon everywhere in Europe and which are still lacking an explanation, there is for example the 5 m deep shaft dug into the limestone found at the small fortification of the nearby Langenenslingen Alte Burg site, and around which scattered fragments of human bones were observed (Röber et al. 2012: 208; Krausse et al. 2016: 141–143). The dry stone walls of Alte Burg, or those finds that were found in the lake of the Biberach karst spring are also considered connected to the cults of the age, which had to be practiced also spatially separated from the settlement (Krausse et al. 2016: 144–148). This kind of separation of space together with the several nearby fortifications indicates that Heuneburg had functioned as an urban-like centre of regional government, power and industry (Krausse et al. 2016: 157–160). Compared to the previous period, this suggests very important social changes, as well as a much more differentiated and concentrated exercising of power and social structure—and just as in case of the mud bricks or the customs of feasting as a symbol of power, the precedents of these social changes lie in the Mediterranean the customs and achievements of which region were spread by the Iranian horse nomad peoples in the seventh century B.C. (Hansen 2011: 299). According to

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[17]See: Röber et al. (2012: 116.117); Krausse et al. 157–160; Hansen (2017: 226).

Svend Hansen, the giant tumulus-related phenomena first occurred in their complex form around 740 B.C., at the Gordion tumulus MM. This could have already been part of the multiple-stage process, which took such a considerable time that in the meanwhile these routes of connection had become seaborne (Hansen 2017: 236). For example, without the land stations, the structural details of Etruscan tumuluses in Cerveteri, Central Italy, rather indicate a close connection with later Lydian tumuluses (Hansen 2017: 233). Based on only their material and form, not even the Regöly pottery finds could be dated earlier than the last third of the seventh century B.C. even though otherwise they indicate a direct connection to Gordion—and in this case there is no data indicating an intermediary area. However, the radiation of those phenomena observed in the tumulus MM of Gordion is not restricted to the west, as one can find it in the east as well. Since the seventh century B.C. a series of phenomena and artefacts have suddenly appeared along the most important routes crossing the Altai Mountains (Pazirik, Bashadar, Tuekta), which are directly related to the former capital of the Phrygians located in Asia Minor, Gordion. Based on the most striking elements of decoration—among which there are lions, griffins, fantastic creatures, lotus motif and iron weapons of particular shapes—they presume that this area was conquered by the descendents of those Cimmerians who have fled Asia Minor, and who had brought this new knowledge and elements with themselves. The war situation caused by the conflicts between the Medes and the Lydians and which affected almost the entire Ancient East also had a determining role in this (Marsadolov 2000). Based on the observations and the parallels of finds of the Regöly tumulus, as well as Herodotus' comment regarding the Sigynnae, we have already presumed previously that the possibility of a people arriving directly from the Ancient East has to be taken into consideration.[18] The occurrences of new technologies within Europe, in the centre of the people in current-day Regöly whom were called the Pannonians by Roman Age sources, the continued production of various types of pottery originated from the Ancient East, the apparently new customs and the socio-structural changes reflected in the tumulus and the structures of settlements are all important additions for the deeper understanding of the orientalising processes. More and more data indicate that the constant conflict situation that developed due to the rivalry between the Medes and the Lydians during the second half of the seventh century B.C. and affecting almost the entire Ancient East, had a determining role in the orientalising process of Europe. Beside the trade of eastern artefacts, luxury articles, and the radiation of trends, customs and patterns, we also have to take into consideration the elite and their attendance running away from the war zones and looking for a new place to settle (including family members, military escort, craftsmen and servants) (Fekete and Szabó 2015). They occupied the most important strategic points in the West (transport nodes, raw material quarries) just the same as those who had started off eastwards.

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[18]See: Szabó and Fekete (2011: 49), Szabó and Czuppon (2014: 54–55).

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The Citadel of Ulug Depe and the "Median Forts" in Western Iran

Rémy Boucharlat

Abstract

Since the discovery of the fort at Nush-i Jan and the series of storerooms at Godin Tepe, the list of the 'Median' forts has grown up until now, with other buildings in the Central Zagros and in the western part of the Iranian Plateau and finally with Ulug Depe 1000 km afar from Ecbatana. The comparisons between the architecture of these monuments have been dealt with by several scholars since the late twentieth century until now, considering they all belong to a Median or Medizing tradition. This paper does not aim to repeat the valuable remarks on the similarities, but taking them into account it seeks to stress the differences they show, not only between the Central Asian buildings and the Western Iran forts, but also pointing to the lack of homogeneity for the second group. Thus it is impossible to consider any Median common cultural entity for buildings so distant from Hamrin valley to southern Central Asia and belonging to different periods (tenth to eighth century or later). To fill the archaeological and geographical gap the Khorasan provinces will hopefully bring some answers.

The excavations of Godin Tepe 1965–1973 and Tepe Nush-i Jan 1967–977 brought to light unknown architecture of the first millennium B. C. (now fully published, Stronach and Roaf 2007; Gopnik and Rothman 2011). Because of their date in the Iron Age III, but definitely in the pre-Achaemenid period, and their location in Hamadan area, ancient Ecbatana, these remains were soon labelled 'Media' by the excavators and the Ecbatana area was seen as the "Median triangle" in the Central Zagros (Stronach 2003: Fig. 4). Hamadan was the northern angle of the Triangle, Malayer the southeastern and Kangavar the western one (Fig. 1). Although it is located to the west of Kangavar, the fortification of Bisutun, situated to the NW of the Darius rock relief, was labelled 'Die medische Festung' (Kleiss 1996) on the ground of some sherds and a partially preserved bronze fibula dated from the seventh century B.C.

At the turn of the present century, new discoveries lead to extend the geography of the Median territory: to the west the salvage excavations at Tell Gubba in the Hamrin valley in Iraq, west of the Zagros mountains range, revealed in the upper levels a small building very similar to the fort of Nush-i Jan (Fuji 1981). This

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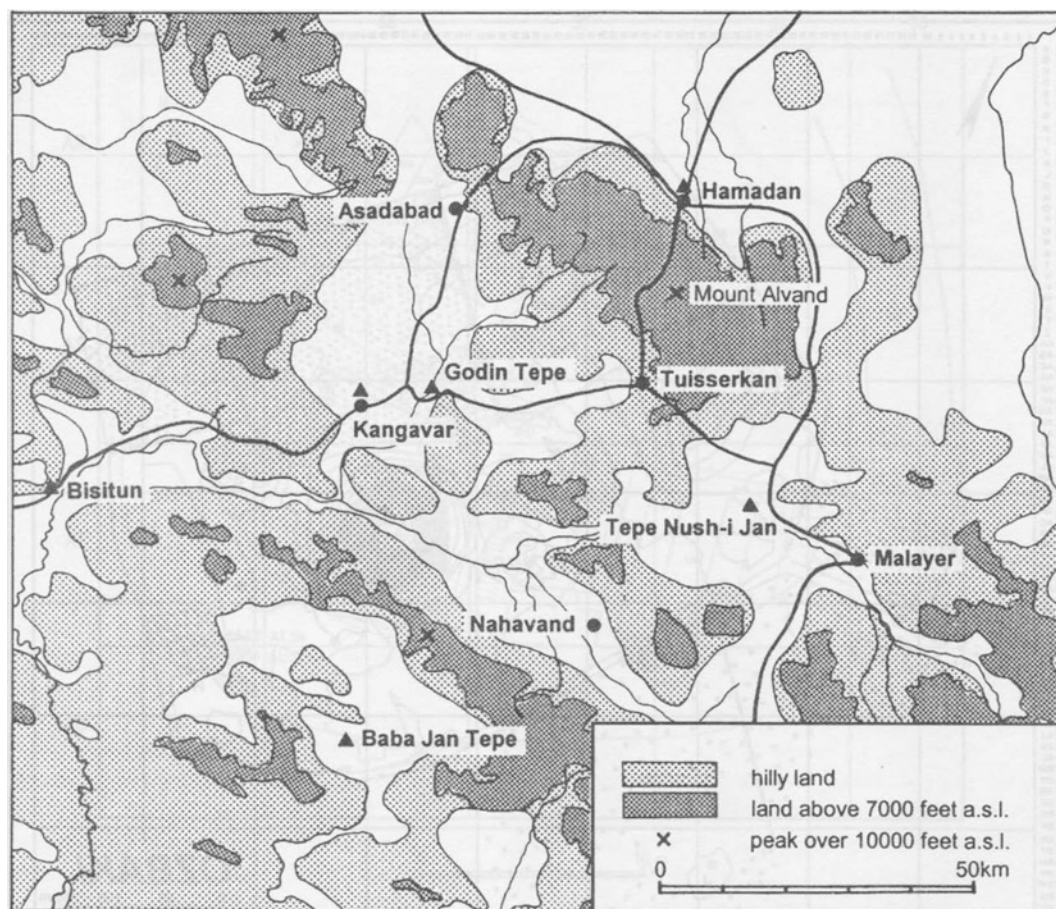e-mail: remy.boucharlat@mom.fr

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Fig. 1 Map of the "Median Triangle" (Stronach 2003: Fig. 4)

unique monument of Gubba was set within a defensive wall. It was not related to other buildings as is the Nush-i Jan fort, located beside other constructions and inside a common defensive wall, nor attached to a larger architectural complex like the double row of storerooms at Godin Tepe. On the opposite, to the east of the Zagros range in the northwestern part of the Iranian Plateau, the upper levels of Tappeh Ozbaki 75 km west of Tehran, excavated from 1998, yielded a building showing a series of three narrow parallel rooms ending to a rounded wall. Dated from the Iron Age III by the material, mainly the pottery, this level was labelled Median (Madjidzadeh 2003).

In the past twenty years, a few other Iron Age III, or Late Iron Age, sites were partially

excavated, with a building offering some similarities with the "Median forts" of the Zagros and other traits close to Ozbaki. Mūsh tepe, very close to Hamadan (Mohammadifar et al. 2015)[1] and Gūnespān (or Pātappeh) 30 km southeast of Malayer (Naseri 2012; Naseri et al. 2016) reinforced the concept of the "Median triangle". The idea of "Median archaeology", born from Nush-i Jan and Godin Tepe excavations, was introduced

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[1]The building is located in an urbanized area. It was partially destroyed prior to the rescue excavations carried out during four seasons in 2002–2005, revealing part of the building extending over 22.5 × 40 m. It consists of a series of two very short parallel rooms and a very like staircase to be compared to the staircase of Nush-i Jan. It was dated Iron III/Median period (Mohammadifar et al. 2015: 232).

even in the title of books (Stronach and Roaf 2007) and articles (Stronach 1985: 288–91 and today e.g.; Naseri 2012; Naseri et al. 2016). Other sites located in the Qom province, therefore more than 200 km east of the 'Median triangle', such as Zar Bolagh between Tehran and Qom on the edge of the Dasht-e Kavir, seem to confirm the eastwards extension of the allegedly Median area as did Tepe Ozbaki some years before.[2] The excavators suggested to relate these buildings, mainly from the preliminary analysis of the pottery, to the sites located in the "Median Triangle". Thus they were simply coined Median, often in the title of the article or report, without always defining whether there are seen in terms of chronology, policy or culture (Naseri 2012; Mollazadeh 2013).

In the same period, excavations were launched at Ulug Depe in southern Turkmenistan, about 15 km from the piedmont of the Kopet Dagh and the northern Iranian border, more than 1000 km afar from the Median Triangle. After the first three seasons of excavations (2001–03), a part of a building was cleared out on the top of the flat summit of the tepe. It showed long parallel rooms within two buttressed walls. At that time only one quarter of the 'citadel', as called by the excavators, was visible but it clearly showed strong similarities with Nush-i Jan and Gubba (Boucharlat et al. 2005), and to a lesser extent with the incompletely excavated building of Yaz Depe in the Merv oasis (Masson 1959: Fig. 23; Masson and Sarianidi 1972: Fig. 24, or more easily available, see Boucharlat et al. 2005: Fig. 8). The long distance between Ulug Depe and the Median triangle dramatically changed the question of the "Median" area. However, it soon appeared that the citadel of Ulug Depe was to be dated from the ninth century B.C., or very likely earlier, in the Early Yaz II period, thus much

earlier than the "Median" forts of western Iran founded in the eight century B.C. (Lecomte 2013: 170–80).

These two series of discrepancies, the chronology and the geographical extension over a huge gap, are first recalled in these pages, but my concern is mainly to question the supposed array of similarities in the architecture of these monuments. That leads me to throw some doubt on the term "Median" which is rather ambiguous, to say the least. Since the turn of the twentieth century, defining all these buildings or sites as Median has lead several scholars to choose the hypothesis of a wide Median territory extending from the Western piedmont of the Zagros, in the Hamrin valley with Tell Gubba to the Southern Central Asia, with Ulug Depe. Was this Greater Media corresponding to a Median empire or, as assumed by more prudent hypotheses, to "ethno-cultural groups" in a much broader meaning than the Medes of western Iran (Boucharlat et al. 2005: 494), to keep a very vague but cautious concept?

Median empire/territory/entity was much discussed in a seminal workshop en 2001 (Lanfranchi et al. 2003), following the question of its actual existence raised some years earlier by Sancisi-Weerdenburg (1988). Both the political entity and its varying expansion between the ninth and the seventh century B.C. were also discussed by Dandamayev and Medvedskaya (2006). To be noted in this time, a few scholars still suggested to extend the Median "empire" far to the northwest in Central Anatolia, to the east of the Halys river because an important site in that region was first considered as Median, namely Kerkenes Dağ. It was later recognized by the excavator himself as an important foundation of the Phrygian kingdom, not as a Median outpost (Summers 2006; Stronach 2012: 677). To the east the "Median empire" was sometimes seen going to southern Central Asia (Roaf 1990: map p. 203, or Diakonoff 1985: Map 5), often reconstructing the Median expansion towards east in three phases (Fig. 2).

During the 2001 workshop in Rome the general trend of the historians was to reject the idea of a so wide Median *empire* while the

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[2]For Zar Bolagh, the plan of the building, an oval structure 12 × 75 m is very far from any layout usually defined as "Median" (Malekzadeh et al. 2014: Pl. 1). To date also, the bricks are square a shape which is usually dated to the Achaemenid period. Its inclusion in the list derives from the preliminary analysis of the pottery which includes S-carinated rim bowls, horizon- tal handled bowls, jars with high neck or occasionally a short spout.
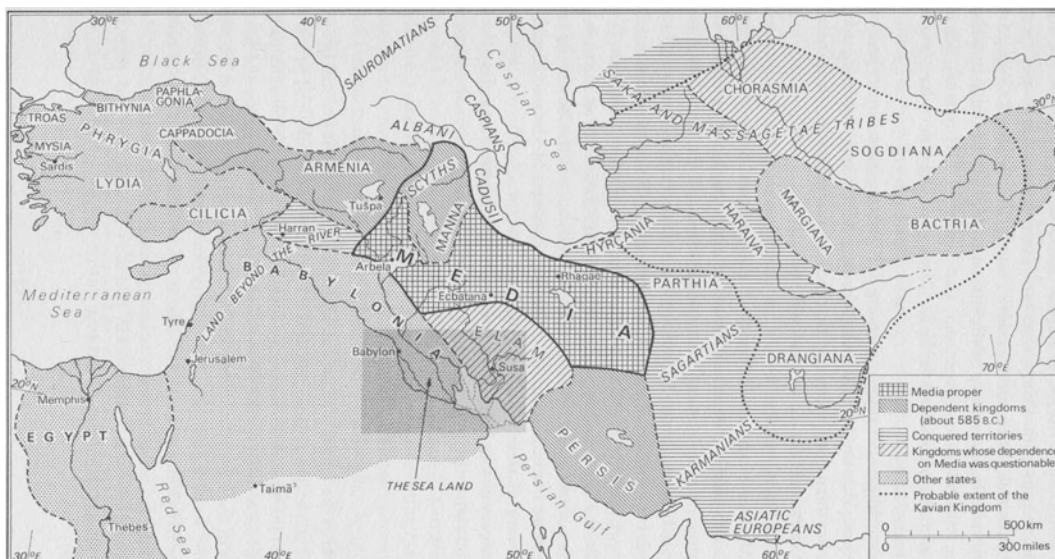
Fig. 2 Map of the allegedly Median territories, with a distribution into three phases (Diakonoff 1985: Map 5)

archaeologists were more reluctant to give up a large Median territory (Stronach 2003; more cautiously Roaf 2003). This paper does not intend to go into a discussion on history of the Medes. To keep within the archaeological field I would take the opportunity of reports recently published in English only a few (the preliminary reports in Persian were published) to discuss the term "Median". Obviously the concept is embarrassing for everybody: On the one hand, the authors write about Gūnespān: "In addition to Nush-I Jan, Godin, Baba Jan and Ozbaki, we now know Gūnespān as a new Median site with distinctive mud-brick structures" (Naseri et al. 2016: 112). On the other hand they note: "However no particular diagnostic Median artifact was found" (idem 110). What is a Median artifact? The same nagging question has been often raised for the Median art (Muscarella 1987; Razmjou 2005), and finally it has also been raised for the Median architecture (Genito 1986). Recently Stronach 2012 dealt with the issue of the Medes territory from an architectural point of view going into details beyond the plan of the buildings such as the narrow arrowslots common to several of them. He kept a prudent position, though stressing the similarities between the forts

of the western Iran and Ulug Depe and apparently minoring the differences. The differences seem to me underestimated, not only between the Central Asia constructions on one hand and the Iranian forts on the other hand, but also inside the latter. My purpose is to insist on the differences for seriously questioning the Median cultural/geographical entity.

1 Geography

From the rather reduced original "Median triangle" with its northern basis in Ecbatana, the territory was extended 300 km westwards with Gubba, then eastwards with new sites on the Iranian Plateau with Ozbaki which is located ca. 200 km to the NE of Hamadan and soon other sites in Qom province. It makes the archaeological area of Media ca. 500 km from west to east. From 2002, the discovery of the citadel of Ulug Depe north of the Iranian Plateau beyond the Kopet Dagh range, the archaeological area under consideration has been extended ca. 1000 km

further north-east. It should be said that the absence of similar monuments between the western part of the Iranian Plateau and the northern side of the Kopet Dagh may well be a hazard. Suffice to mention the dearth of sites on the archaeological maps of sites of any periods in the three Khorasan provinces until the very last decades. Nevertheless, for the time being, there is a series of buildings under discussion distributed into areas in western and northwest Iran and only one or maybe two (Yaz Depe) in the east, far beyond the Kopet Dagh range.

Chronology (Table 1)

The buildings of the Zagros have not been securely dated until a recent date. For Nush-i Jan, D. Stronach proposed first the (late) eight and early seventh cent B.C. and now (Stronach and Roaf 2007), mid eight–early seventh cent B.C. For Godin, the chronology varied but it was first attributed to the seventh century B.C. In the final publication (Gopnik and Rothman 2011: Table 7.1) the date is put earlier mid eight-mid seventh century B.C., and the squatter occupation in the sixth century B.C., on the basis of a precise analysis of the pottery in stratigraphy and a series of C14 dates. To my knowledge, the sites of the Plateau are not more precisely dated than the Iron Age III or Late Iron Age.

Finally for Ulug Depe, the chronology has been long uncertain because of a problem of samples for the C14. It was and is still considered to be dated Early Yaz II, therefore in the very first centuries of the first millennium B.C., as it is accepted today for this phase. The final

Table 1 Chronological chart of some Iron Age III sites in western Iran (Gopnik 2011: Table 7.1)
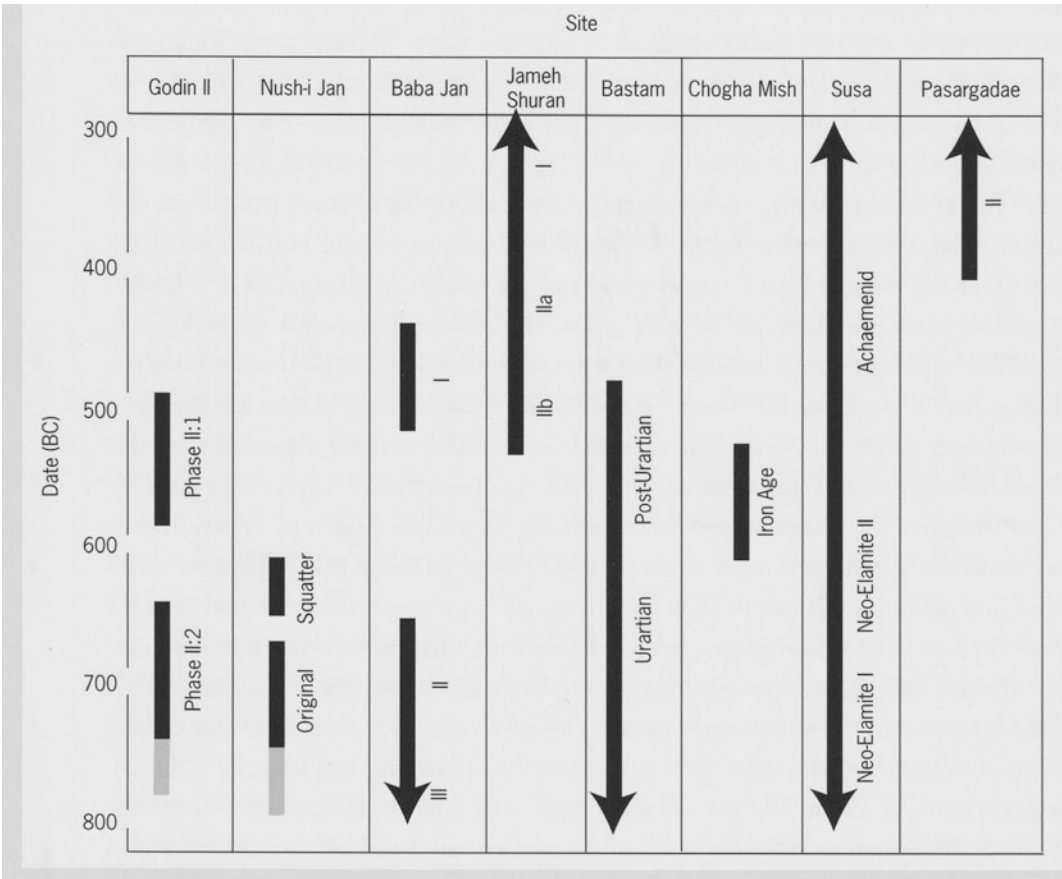
abandonment is to be dated in the seventh century. According to some more radiocarbon analyses, the date for the destruction of the citadel by a general fire is dated of the ninth century The construction date is unknown but is obviously earlier, maybe in the tenth century (Lecomte 2013). Moreover the known citadel is built upon another citadel of the same plan but on a slightly reduced scale. Thus the visible plan is to be dated before the ninth century and may well originate in the previous century(ies).

As a result, there is a difference of some two centuries between Ulug and the "Median" forts of the Zagros. Moreover a likely high chronology of Ulug citadel (tenth century B.C.?) would make it closer to the date of Yaz citadel, belonging to the Yaz I period, which is now put back to 1500/1400–1000/900 B.C. (Lhuillier 2013). These results clearly show that Ulug citadel was built well before all the so-called Median forts. Ulug Depe (and possibly the other similar buildings in that region such as Yaz citadel) should be the original layout. As an unavoidable consequence, if we consider the forts in Iran and eastern Iraq belonging to the same tradition as Ulug Depe they should derived from a Central Asia origin but one or two centuries later. A rapid analysis of the different monuments does not lead to such a simplistic conclusion. Let us now consider some undeniable similarities between Ulug Depe and certain features of the Iranian buildings, the value of these comparisons and, conversely, emphasize major differences between Ulug Depe and the Iranian monuments which themselves actually do not constitute a homogeneous series.

The similarities and their limits (Figs. 3 and 4)

- The geographical location of the buildings is of some importance, since most of them are on the famous Highway linking Mesopotamia to the Iranian Plateau: From west to east, there are Tell Gubba, Godin Tepe, Mūsh Tepe, near Hamadan, and Ozbaki west of Ray (Tehran). The Central Asian sites are on the northern side of the Kopet Dagh, on an alternative road to the east. Ulug Depe is right to the north of a pass going through from

Meshhad, and Yaz Depe is located in the important Merv oasis.

- The topography is nearly the same for all the buildings, on the top of a hill or a tepe: e.g. 36.80 m high at Nush-i Jan, some 20 m at Godin Tepe, 26 m at Ozbaki, more than 20 m at Gūnespān, 30 m at Ulug Depe, but only 3.50 m at Mūsh Tepe. Since these buildings aim to protect the content of the storerooms, as shown by the fortified external wall, the location on an elevation is not surprising.

- Comparison of the general plan is valid between Nush-i Jan and Tell Gubba on the one side and Ulug Depe on the other side. *But* the storerooms of Godin Tepe are differently organized into two series of parallel rooms. Elsewhere, the plans are far from complete and do not allow a comparison of the general layout.

- A peripheral corridor is shown at Ulug and Gubba only. Note that the former has two, Gubba only one.

- Series of long parallel rooms at Ulug Depe, Nush-i Jan and Godin Tepe, *but* only three very long rooms at Gūnespān, two or three short rooms at Mūsh tepe, two and a very short one at Ozbaki. Such a plan is commanded by the techniques of roofing, whether it was by struts (see: below) or rows of pillars. *But* the series of long parallel rooms is also known in many non 'Median' sites of the late second and first millennium B.C. sites from the Hittite period in Anatolia and later in Urartu (Forbes 1983: Fig. 5-6), and conversely such a layout is still present in the corner towers of the so-called Apadana of Persepolis, as Roaf (2003: Fig. 3), then Stronach (2012: 680–81) rightly pointed out.

- Presence of a storey: Nush-i Jan, Ulug Depe, very likely Tell Gubba and Godin Tepe, and also in Zar Bolagh. *But* the stairway leading the upper storey is direct from the entrance at Nush-i Jan and Ulug Depe, in order to create a controlled access to the storerooms of the ground floor. It starts from one the long rooms in Tell Gubba, probably in Godin Tepe, unknown elsewhere. In Ozbaki, the staircase seems to be outside of the blocks of parallel rooms. Such a difference is probably related to the function of these buildings (Fig. 5).
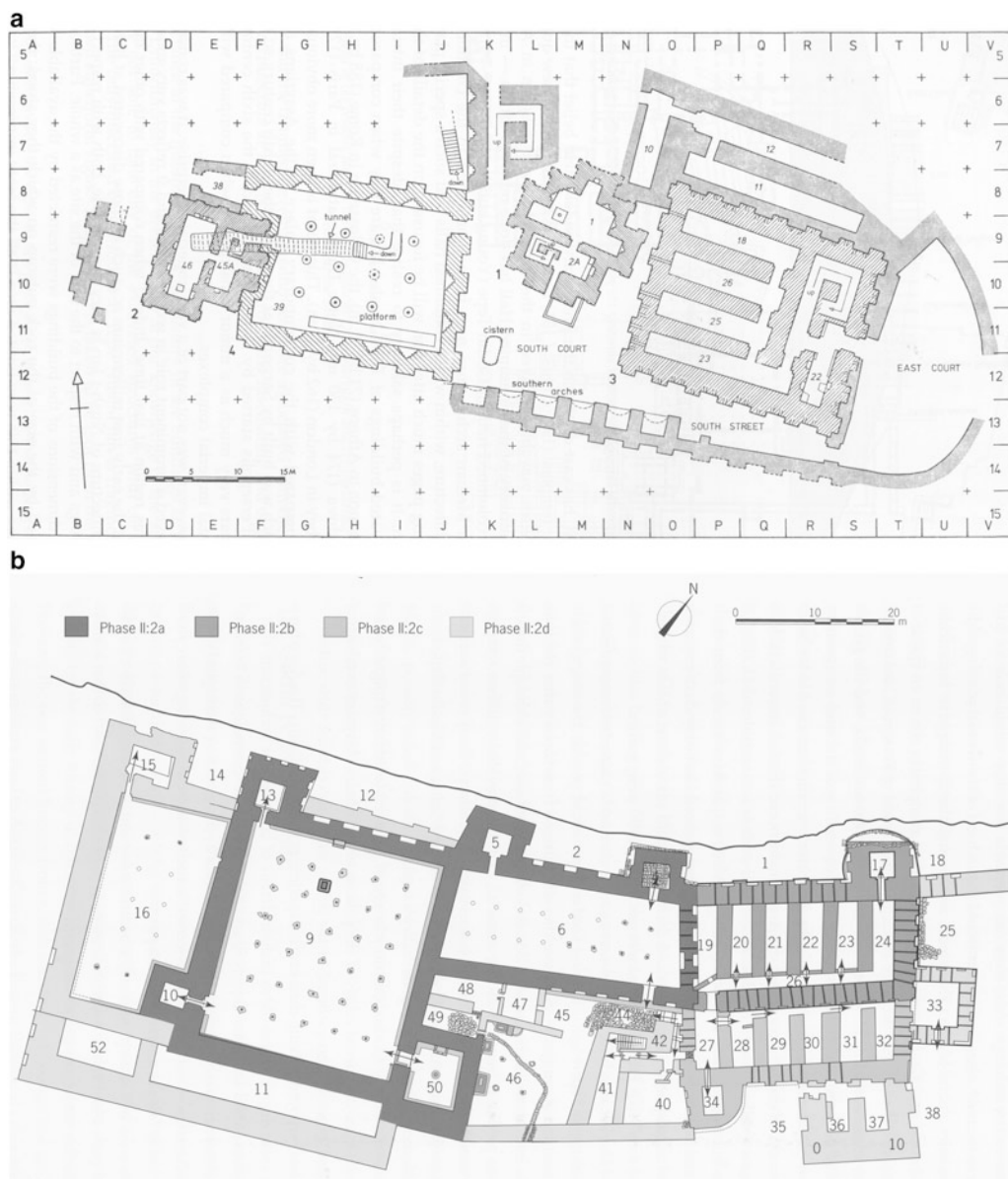
Fig. 3 **a** Nush-i Jan (Stronach and Roaf 2007: Fig. 1.9). **b** Godin Tepe (Gopnik 2011: Fig. 7.7). **c** Tell Gubba (Fuji 1981: Fig. 10). **d** Tell Ozbaki (Majidzadeh 2003: Fig. 12). **e** Mūsh Tepe (Mohammadifar et al. 2015: Fig. 3). f Gūnespān (Naseri et al. 2016: Pl. 5). **g** Zar Bolagh (Malekzadeh et al. 2014: Pl. 1A)

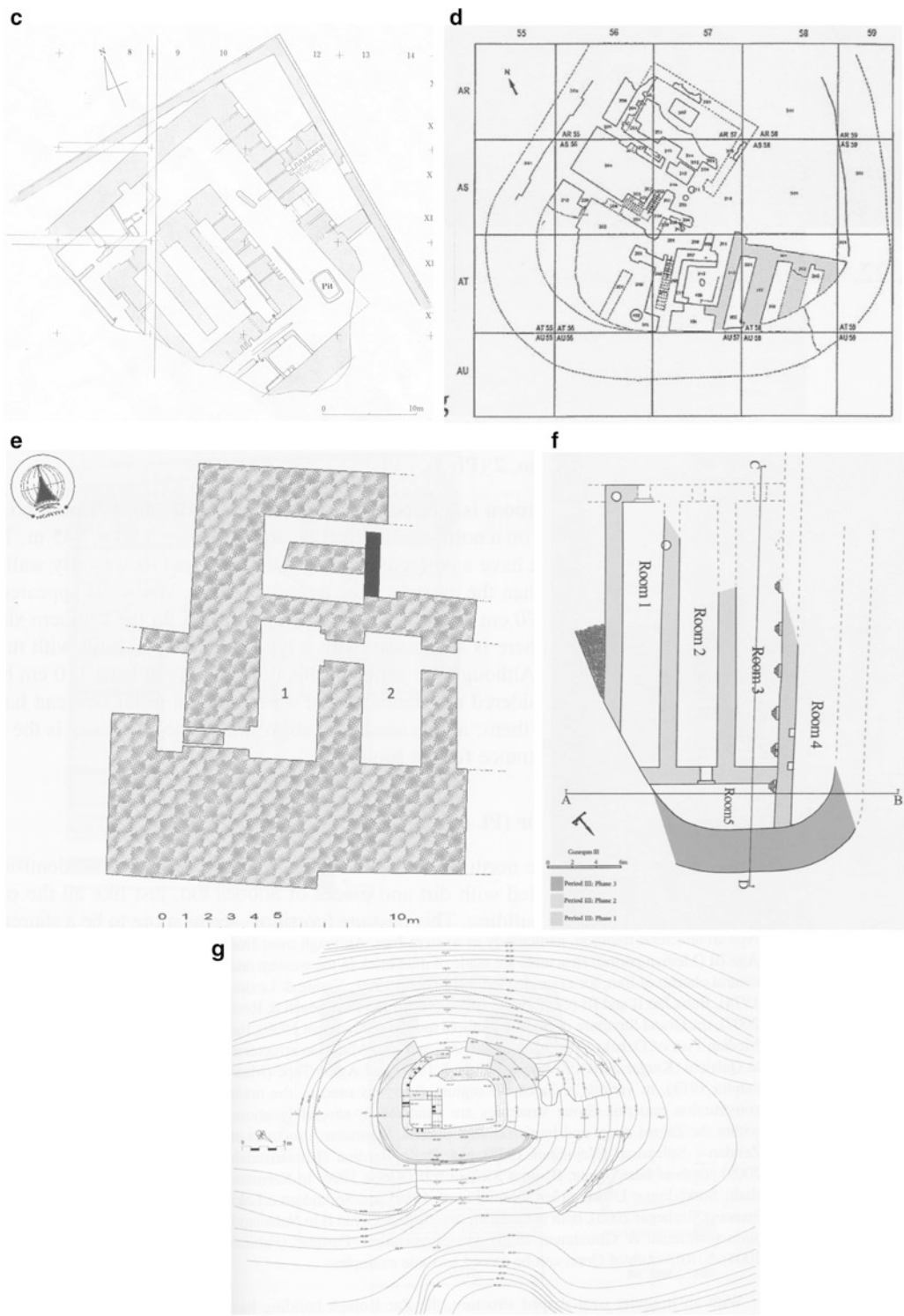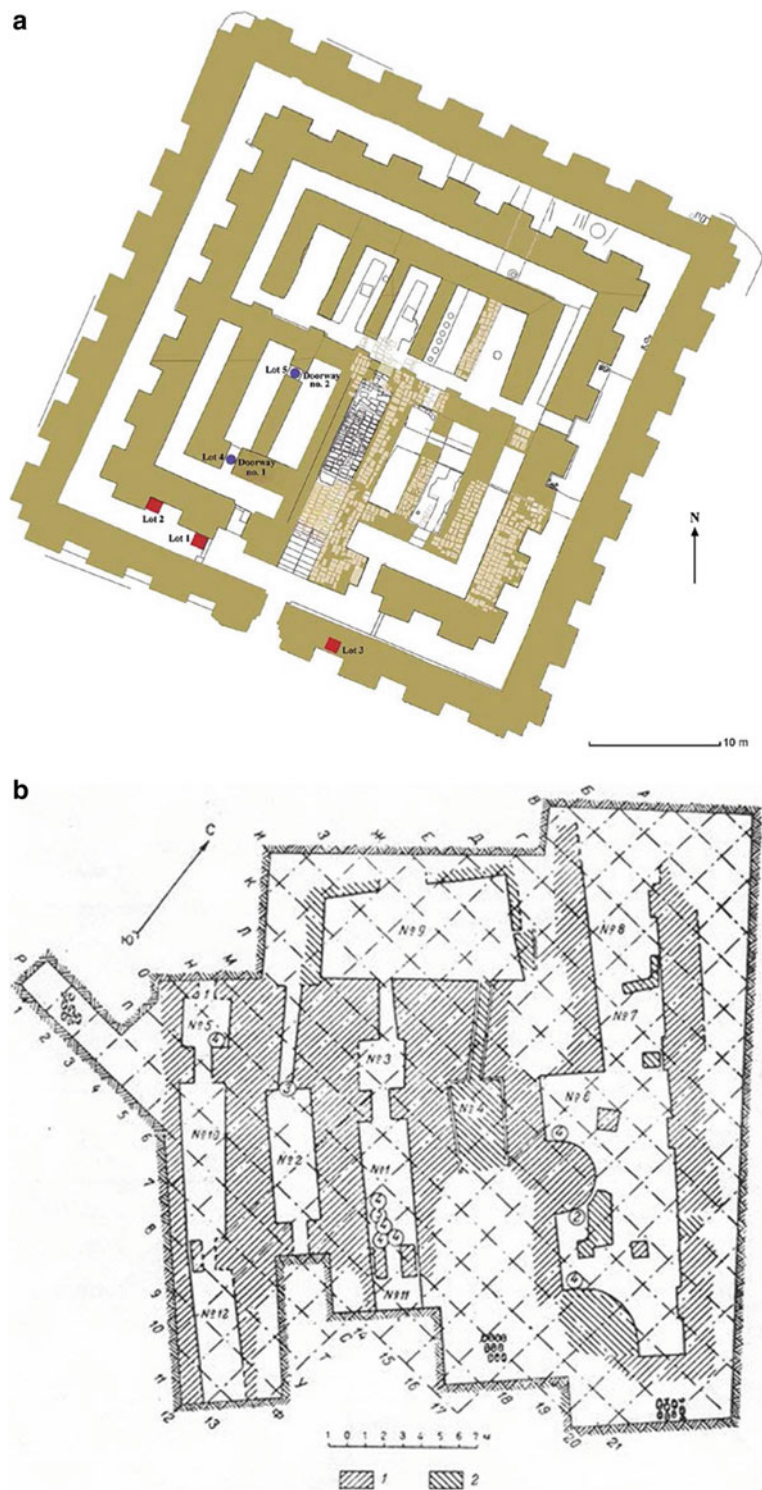**Fig. 3** (continued)

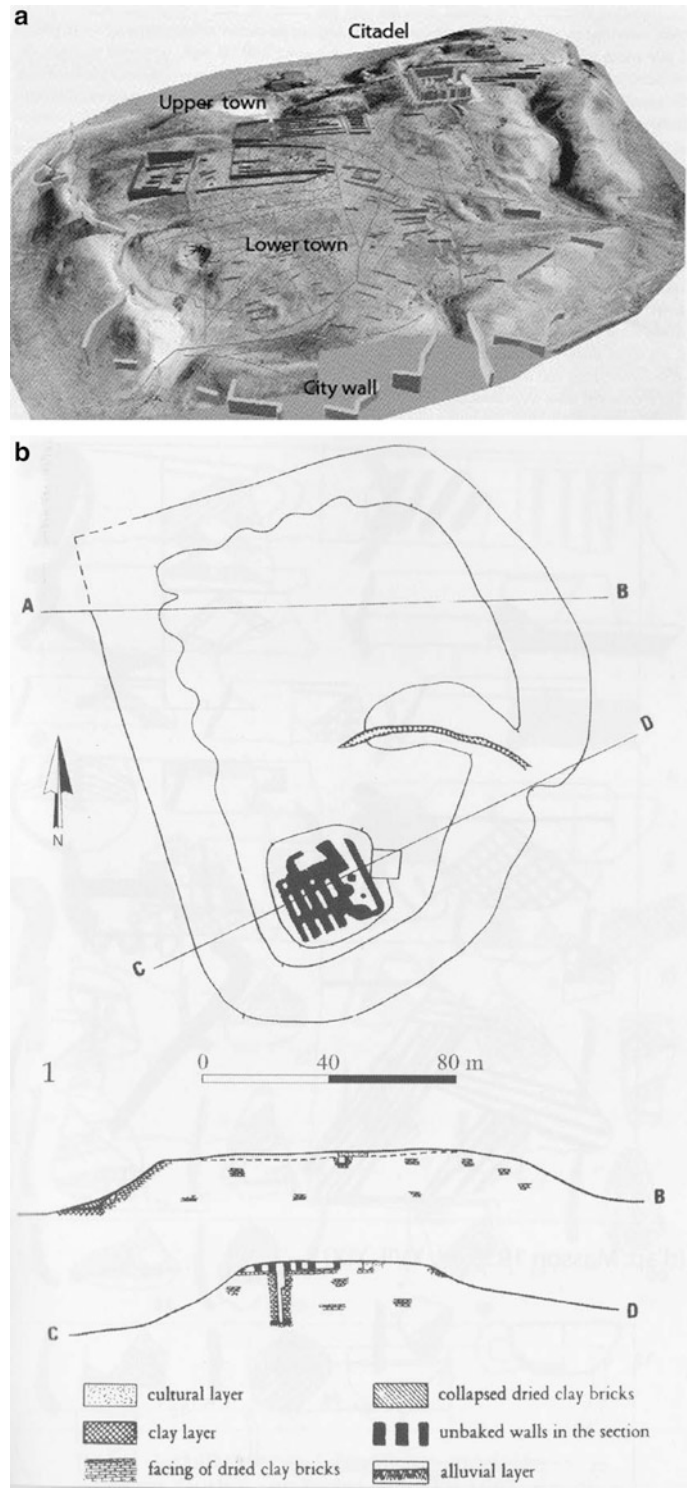**Fig. 4** **a** The citadel of Ulug Depe (Xin and Lecomte 2012: Fig. 2). **b** The citadel of Yaz Depe (Masson and Sarianidi 1972: Fig. 24)

Fig. 5 Central Asian Iron Age towns and their citadel protected by a defensive wall. **a** Yaz Depe (Lhuillier 2013: Pl. 51). **b** Ulug Depe (Lecomte 2007: Fig. 14)
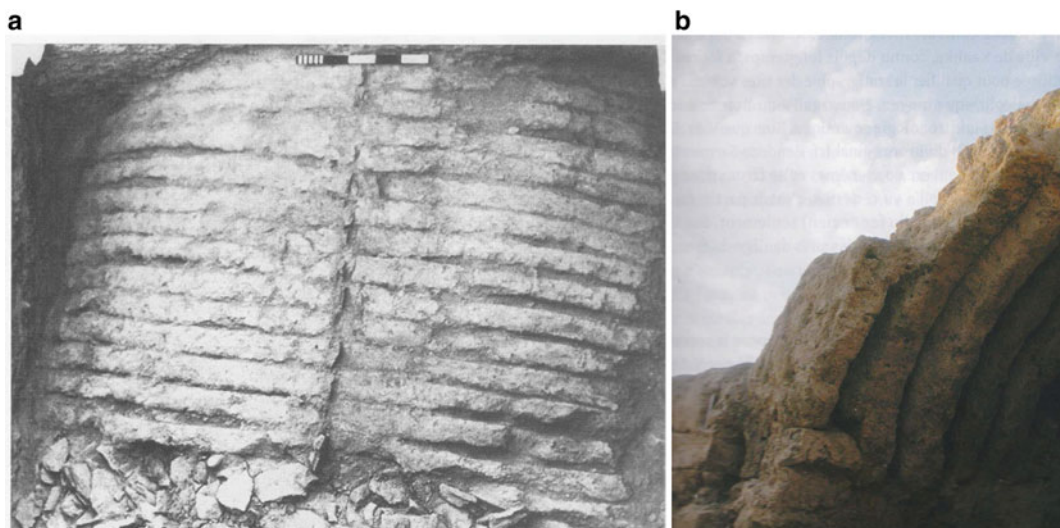
Fig. 6 a Vaults made of struts at Nush-i Jan (Stronach and Roaf 2007: Pl. 12b). **b** Ulug Depe (Lecomte 2013: Fig. 12)

- Roofing: two long struts or three forming a vault at Ulug Depe, Nush-i Jan (Fig. 6), Mūsh Tappeh and probably at Gūnespān *but* this roofing technique is also well attested in the following Achaemenid period, in Persepolis fortifications, and at Dahan-i Ghulaman.[3]
- Buttressed walls at Ulug Depe, Nush-i Jan, Godin Tepe, maybe Gūnespān (buttresses or inner pilasters? Naseri et al. 2016: Pl. 5 and 7), *but* not elsewhere.
- Oval outer wall at Nush-i Jan, Tappeh Ozbaki, Gūnespān. *But* such a shape is not surprising for enclosing a construction onto the rounded top of an elevation.
- Brick sizes: this point has been dealt with several times, especially by Stronach (2012) for the main forts of Nush-i Jan, Godin Tepe and Ulug Depe, and Mohammadifar et al. (2015: 238) who added MūshTappeh. Considering the whole series of buildings, there is an homogeneity of rectangular bricks for all the sites under study. The size is rather similar for the Zagros and Iranian Plateau sites, except for Zar Bolagh (square bricks), *but* the bricks are much bigger at Ulug Depe:

- Nush-i Jan: 40 × 25 × 13 cm
- Godin Tepe: 41 × 24 × 13; 36 × 30 × 13 cm. Tower No. 5: 47 × 29 × 12; 43 × 27 × 11 cm
- Tell Gubba: 47 × 25 × 10 cm (squatter occupation 33 × 33 × 10 cm, the Achaemenid standard)
- Mūsh Tepe: 42 × 24 × 11 cm
- Gūnespān: 42 × 25 × 12 cm
- Tappeh Ozbaki: 43 × 28 × 10 and 42 × 42 × 10 cm
- Zar Bolagh: 40 × 40 × 12 and 35 × 35 × 9 cm

But

- Ulug Depe: 58/52 × 30/28 × 10/9 cm
- Yaz Depe: 53 × 28/29 × 12/13 cm

In the Iron Age III Western Iran, the bricks are rectangular and rather large in comparison with the Achaemenid period when the bricks started to be square-shaped and much smaller, ca. 33–36 cm.[4] Conversely the Iron Age (Yaz I and II)

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[3]This roofing technique may have existed on some other sites but the elevation is not preserved to this height.

[4]Apart from Zar Bolagh, Ziwiye is another case with square bricks of 46 × 46 × 14 cm (quoted by Azarnoush and Helwing 2005: 220). As a piece of information, the size of the bricks at Torang Tepe, located near Gorgan, north of the Elborz range, between Ulug to the northeast

bricks from comparable buildings in southern Central Asia are much bigger.

- Material: there are some resemblances in the pottery shapes, such as the storage jars (several examples buried in the floor of the long rooms at Ulug Depe, and maybe in other sites, though not found in Nush-i Jan nor in Godin Tepe). *But* such storage jars do exist on Urartian sites such as Bastam. The bowls with horizontal handles are common on the Median sites and this distinctive shape is used to label the corresponding levels Iron Age III, thus Median. They are absent in Ulug Depe. For the tankards, there are a few examples in Ulug Depe in the latest period of occupation (seventh century) as it is on some sites, such as Godin Tepe, Ozbaki, Sialk V (not VI), *but* they are more numerous in post-Urartian sites, a priori out of the Median territory. This pottery shape requires a much more precise study of the profile and details of the body, neck, opening etc. (cf. Dan et al. 2019).
- Presence of a columned or pillared hall on the site: it exists at Nush-i Jan, Godin Tepe, Baba Jan (but the latter devoid a fort similar to the 'Median' ones), *but* not on the other sites as far as we know, nor apparently at Ulug Depe (the large buildings have been defined by geomagnetic prospections, but are not yet excavated). Moreover pillared halls have been also evinced on non-'Median' sites such as Hasanlu IV, Ziwiye, etc.
- The fate of the buildings: most of the sites bearing a fort-like seem to be abandoned

before the Achaemenid period, apart from Tell Gubba fort, still in use when the thin peripheral wall was added around the fort. There are two cases of intentional filling, as it is well known for Nush-i Jan (Stronach and Roaf 2007, 90–2). These authors, followed by Lecomte (2013 173–4) have suggested a parallel with Ulug Depe, where some long rooms of the ground level have been blocked during the second phase following a general fire. Can these blockings be comparable? In the case of Nush-i Jan this operation only concerns the old temple, probably illustrating a desecration, while the partial blocking of the citadel of Ulug Depe corresponds to a politic-economic decision, since a religious purpose has never been suggested for the citadel.

The differences (Fig. 3, 4, 5)

- At the level of the whole site, there are different functions, a high place in Nush-i Jan or a local chief residence at Godin Tepe (and why not at Nush-i Jan?), unknown at Tell Gubba. Conversely Ulug Depe is totally different. The citadel is the most fortified building on the highest point on the rather flat summit of the tepe. It is only one of the components of an actual city, an urban settlement extending over 10 ha, including a possible palace, a warehouse-like building 60 m long in the upper town and a lower town with many common houses and buildings of different sizes. It is a *citadel* in the proper meaning (the most fortified building within a city). The city had its own urban defensive wall protecting the 10 ha summit (Fig. 5a). This difference leads to stress there are a *citadel* in Ulug Depe, as well as in Jaz which is built on a eight meters thick brick platform (Fig. 5b), and *forts* in the Zagros.[5] For the latter, though some sites have been

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and the northwestern Iranian plateau and Ecbatana area to the west, are as follow: Iron Age II (TT IVA): 45 × 35 × 10 cm or 42 × 32 × 8 cm; Iron Age III (TT IVB): 80 × 45/50 cm to and 60/65 × 50 × 7/10 cm. Thus the size of the Iron Age II bricks are closer to those of the "Median" sites than those of the Iron Age III. From the Achaemenid period (TT Va) onwards, the bricks are definitely square-shaped but of different size, successively smaller in the Period VA: 42, 37, 33 × 8 cm (Deshayes 1976; Cleuziou 1985). This evolution from the large rectangular bricks to the square ones in the Achaemenid period and later has been equally observed in Central Asia.

[5]This is also the case at Yaz Depe, in Margiana (Masson 1959: Fig. 23; Masson and Sarianidi 1972: Fig. 24) though the citadel belongs to the Yaz I period, now to be dated from the second half of the second millennium B.C.

only partially excavated, none was an actual city. That is clear at Nush-i Jan, Godin Tepe, Mūsh tepe, probably in Zar Bolagh and Gūnespān, undetermined at Tell Ozbaki. Moreover, the steep slopes of the hill bearing the fort prevent to built an actual town on them (for example Stronach and Roaf 2007: Pl. 1–3; Gopnik 2011: Fig. 7.46). It could have been no more than barracks and modest houses, as it is in Zendan-e Solaiman.

- A related matter, the location and relationship or not with other buildings. For the multiple buildings sites, the fort is separate from the other constructions at Nush-i Jan and Ulug Depe, and conversely attached to the others buildings in Godin. Elsewhere, the forts seem to be standing alone, except in Ozbaki. Thus, the position of the forts with regard to other constructions should have a signification regarding their function.

- The size of the buildings is another difference. Nush-i Jan (25.40 × 22 m) and Gubba (16 × 15.50 m) are respectively three times and ten times smaller than Ulug Depe (40 × 40 m). The other constructions are not complete and built on a too different plan for allowing a comparison.

- The internal layout: as already mentioned, only Gubba and Ulug show peripheral corridor; however the latter has even two concentric corridors.

- Accepting the absolute chronology for the sites in the Zagros, in the eighth and seventh century B.C. (see: Table 1), there is an irreconcilable difference with Ulug Depe to be dated to the ninth century or more likely to the tenth century B.C.

- The relative chronology: Nush-i Jan fort was the latest built monument on the site, after the Central Temple, the Western temple and the hypostyle hall. Thus the site has functioned without the fort for a given time. The same evolution is proposed for Godin Tepe, where the northern storeroom series (Phase II 2b), then the southern one (Phase II 2c) were added to the original plan first limited to the main columned hall and the smaller one to the east. The chronological interval might have

been short and may correspond to successive construction phases within one period. For Ulug Depe, the internal chronology between the varied monuments is still to be defined, but given the topographic position of the citadel, there is good reasons to think it was built at the very beginning of the Iron Age occupation of the city.

- Another striking difference between Ulug Depe on one side and the forts in Iran on the other should be stressed: the numerous sealings and the (later) bullae are unique. They are witnesses of centralized administrative activities (Xin and Lecomte 2012). Nothing have ever been found elsewhere, not even in Godin Tepe which is the most complete compound corresponding to a local political/economical centre and has been extensively excavated. Ulug Depe illustrates two different phases of administrative documents. The oldest ones are the sealings (to be put on jars and/or doors) showing the iconographic tradition of the Late Bronze Age, ending in the mid-second millennium B.C. The possible reuse of seals of that period has even been suggested by the authors. Both observations point to a not too long chronological/cultural gap with the Late Bronze Age. The later seals are illustrated by a small series of bullae. One of them has been compared with a Late Neo-Assyrian seal.

2 Discussion

To sum up, the half a dozen of monuments under study share some components but generally one with another one only, rather than all together: Ulug Depe, Nush-i Jan, Gubba share a similar general plan; these two, plus Godin, Gūnespān and to some extent Ozbaki share several long parallel rooms. However the main common feature of the long parallel rooms is weakened by the existence of numerous other examples from non "Median" sites. This is true also for columned or pillared halls (Nush, Godin, but not elsewhere), while there are several examples in

Urartian and post-Urartian sites (Altlntepe, Ere-buni, Bastam, Ziwiye, Forbes 1983: Fig. 6, 12, 31, 32). In Urartu, the long and narrow rooms are usually intended for storage but they are not built as isolated or separate constructions (Forbes 1983: 49–59), as in the central Zagros during the "Median" period (Nush-i Jan, Godin Tepe). Most of the Iranian sites share some distinctive similar shapes of pottery, but have very few parallels with Ulug Depe. These parallels are sometimes valid for non Median sites, including the tankard which is spread on post-Urartian sites in Azerbaijan and in the Caucasus.

In such conditions, I don't see how we could conclude to a Median *entity*—to avoid to speak of empire, kingdom, etc.—on such a so large extension as it was sometimes suggested. This prudent attitude derives from observations: several components are common to the architecture of the 1st mill B.C. in western, northwestern Iran, eastern Anatolia and Caucasus: buttressed walls (Forbes 1983: Fig. 20, 21, 23, etc.); narrow arrowslots crossing a thick wall, long parallel rooms, some pottery shapes.

On such a geographical extent, we have finally a short list of sites which do not have the same environment, the same size, the same general layout, the same plan, therefore probably having not the same function. Are they centres of chiefdoms as we speculate for Godin Tepe and Baba Jan, or a ritual one for Nush-i Jan or an administrative (socio-political-economic political centre) for Ulug Depe? Given the diversity of possible functions, it is difficult to actually compare these buildings. It seems wiser the researchers stay on a more general archaeological definition and chronology for these sites, such as Iron Age III, though it does not fit for the much older Ulug Depe (early first millennium B.C. Early Yaz II period Iron Age II in Iran), not speaking of Yaz Depe probably older belonging to Yaz I period. Calling these sites Median leads us to see such populations living in southern modern Turkmenistan as early as the second half of the 2nd millennium B.C.

Why not? But we don't have the first piece of such an evidence. Could we see the area occupied by Irano-Aryans or Iranians tribes, including

Median groups mixed up with others populations previously settled here? This is a more possible scenario, though we have nothing in Ulug Depe and Yaz Depe to see these settlements occupied by identified Iranians. Thus it is certainly too early to question the movements and directions of the Iranian migration(s) to Iran in the late second and early first millennium B.C. (see: the same prudent stance in Azarnoush and Helwing 2005: 233–34). From the Assyrian Annals, we know of the presence of the Medes in the central Zagros from 835 B.C., but this is only the first written evidence. Some groups, Medes or more widely, Iranians, may well have been present before this date, but when and where?

The strong similarities, though with differences, from Ulug Depe citadel with the plans of the forts Nush-i Jan and Gubba are obvious I am fully aware this is not coincidental but insufficient to establish a direct filiation from the Early-Middle Iron Age of Southern Central Asia to the Late Iron Age in West and Central Iran. The question remains to be solved by future research and new discoveries. In this respect, the recent investigations in the north-eastern part of Iran, namely in the three Khorasan provinces, are extremely promising. Stronach (2012: 678–79) rightly supposed new discoveries for the 'Median' period in Jajarm area in the province of North Khorasan. Recent discoveries are being producing important results for the earlier Bronze Age in several places, and now for the Achaemenid period at Tappeh Rizi in the same province. This assumption can be extended to Khorasan Markazi. No doubt current and future field research might fill the gap between the two far distant areas, Western Iran and Southern Central Asia for the early first millennium B.C.

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Contributions for the Identification of the Human Bust on a Winged Disc in Iranian Arts

Matteo Compareti

Abstract

This paper focuses on a very controversial symbol to be observed pretty often in Achaemenid art, the winged disk surmounted by a human bust also called "winged Genius". Despite its origins to be individuated in ancient Egyptian solar prototypes, this element was adapted in Achaemenid art through Urartu and Assyria. In this author's opinion, the solar disk with human bust probably pointed at a representation of the main deity of the Zoroastrian pantheon Ahura Mazda. Its later adaptations can be observed in post-Achaemenid art such as in the coinage of the kings of Persis. It was possibly transformed in a successive phase in the spread wings motif to be found sometimes on Sasanian crowns as a pedestal exalting astronomical symbols.

Keywords

Winged disk · Achaemenid art · Sasanian spread wings

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1 Introduction

Images of a human bearded bust holding a round object in one hand coming out from a winged ring can be observed very often in Achaemenid art. That motif appears in the Bisutun reliefs, at Persepolis, the royal tombs at Naqsh-i Rustam and a large number of Achaemenid seals and sealings. Scholars proposed different names for this motif such as "winged disk" "winged genius", etc. In his recent publication on the iconography of Zoroastrian deities, Michael Shenkar has recollected many representations of the human bust above a winged disk (Shenkar 2014: 47–51; See also: Garrison 2017). Unfortunately, many specimens of un-epigraphic Achaemenid seals and sealings do not represent scientifically attested discoveries being very often part of private collections donated to museums or acquisitions from the antiquary market.

The "original" winged disk is probably an Egyptian creation that was later adopted and transformed through the Hittites, Urarteans and many other Near Eastern peoples who maintained in many cases (but not exclusively) some associations with solar deities (Cornelius 2014: 155). Despite many points not completely understood, it seems that the motif of the winged disk was very popular in all these regions and could have been adapted extremely easily in different cultural spheres from Egypt to Anatolia, from Syro-Palestinian coast to Mesopotamia.

Some scholars even proposed to identify that symbol together with the name of YHWH in Jewish art, for example, in the Taanach banner (approximately 1000 B.C.E) (Cornelius 2014: 150) although it could have been referred to feminine deities as well (Ornan 2005a). Very problematic Mesopotamian written sources seem to describe the human bust above a winged disc according to several divine names to be associated with deities who had specific connections with contracts. Those deities were probably invoked as witnesses and this is the main reason why that symbol appears frequently on official representations of kings in front of their gods. In Babylonia, Syria, Anatolia and north-western Arabia the "witness god" was probably Shamash while in Phoenicia and Palestine the association was with Adeshu. In many cases, the motif was just a simple winged disk since the human bust was going to appear in Neo-Assyrian period when the deity referred to could be Salmu or Salmu-sharri (Dalley 1986). On the Phoenician stele of Yehawmilk (fifth century B.C.E) there is also an inscription referring to "the golden solar disk that is carved in the center of the stone" (Cornelius 2014: 153). Contradictory information in written sources do not allow a precise identification of the human bust above a winged disk. The reason is not completely clear but it should not be ruled out that any explanatory inscription was considered redundant and unnecessary for those ancient peoples who knew it very well. As it happens very often in these cases, during the centuries its original meaning was completely lost until the ascension of the Persian Empire in the mid-sixth century B.C.E after several passages through very different religious and cultural milieu.

Shenkar supports the identification of the human bust on a winged ring as a representation of Ahura Mazda. One figurative cylinder seal from the "Oxus treasure" being his main argument. In this unique artifact now kept in the British Museum, the winged ring appears "twice in the same composition—combined with the human figure and separated from it". The scene in this seal comprises two almost identical parts separated by a vertical line: on the left a Persian warrior is killing one enemy (probably a Central Asian infantryman) while on the right he kills two of them (Fig. 1). In the first occurrence, there is a winged disk surmounted by a human bust while in the scene on the right there is a "simple" winged disk combined with a ring comprising a human bust. In Shenkar's opinion, everything would point to the equation between the winged disk surmounted by a human bust with the second, more complex, combination. This solution seems to be very convincing because every element appears in the same space despite the vertical line separating the scenes.

However, something more should be considered. In fact, there are at least two other "Achaemenid" seals respectively kept in the British Museum (acquisition ANE 89852 N/1065) and Ankara Museum originally from Gordion (100, cat. o. 33) embellished with a winged disk surmounted by a human bust combined with a second human bust into a circular frame below.[1] How could such combinations of divine symbols be explained? It is true that the British Museum seal (Fig. 2) and the Ankara Museum one (Fig. 3) do not present a doubled fighting scene but it is also evident how such representations maintain the discussion about a convincing and definitive identification of Achaemenid symbols still open. It should not be ruled out the possibility that the human bust in a simple circular frame was actually intended to be another deity not to be identified with the human bust above a wing disk. In any case, Shenkar seems to be right when he does not accept the identification of the winged disk as a representation of a hypothetical "Sun God". In fact, there is at least another possible Achaemenid seal in the British Museum (Fig. 4) embellished with a winged disk surmounted by a human bust represented in the sky together with the sun and moon (ANE 132846, 1960-5-17, 18) (Merrillees 2005: pl. XXVII, 72). If the winged disk should be considered a solar deity in Persian art, why reproducing another clear image of the sun in the same scene?

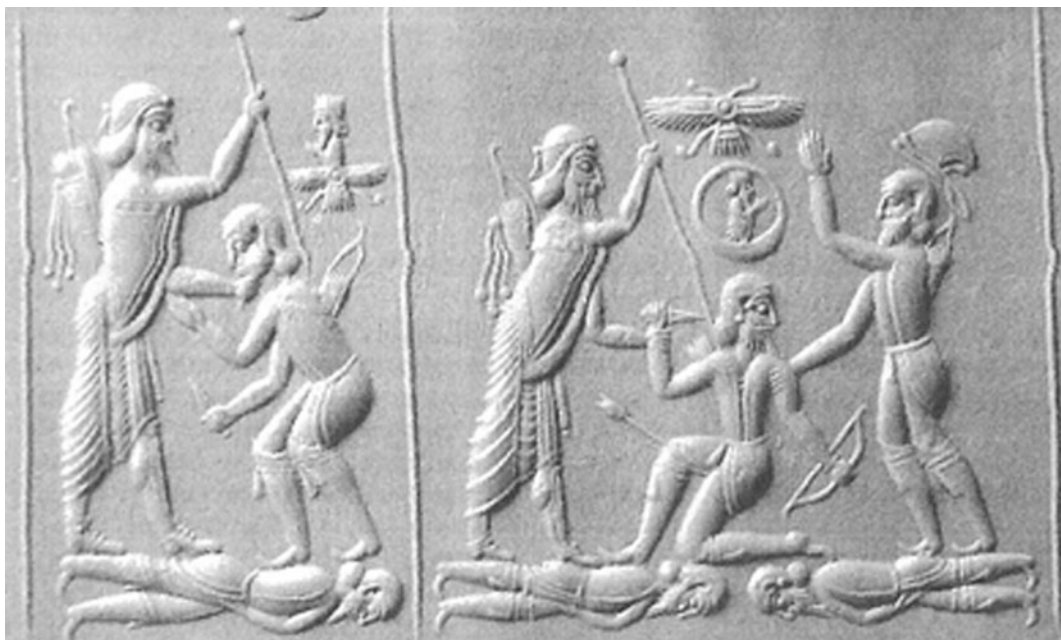[1]See: Catalogue London, 2005: cat. 203; Dusinberre (2005: 91, Fig. 6).

Fig. 1 Possible Achaemenid seal, British Museum ("Oxus Treasure"). *After* Shenkar (2014: Fig. 4)

Fig. 2 Possible Achaemenid seal, British Museum (ANE 89852 N/1065). *After* Catalogue London 2005, cat. 203

Fig. 3 Possible Achaemenid seal, Ankara Museum (originally from Gordion, acquisition 18361). *After* Dusinberre (2005: Fig. 6)

Fig. 4 Possible Achaemenid seal, British Museum (ANE 132846, 1960-5-17, 18). *After* Merrillees (2005, pl. XX–VII, 72)

In order to support the identification of the winged disk (and, possibly, its variants) with Ahura Mazda, other representations of something similar in Mesopotamian art should be considered. It is well-known that the Achaemenids inherited many elements from Mesopotamian culture and, specifically, from the Neo-Assyrian and Urartian milieu (Garrison 2013: 574; Stronach 2012: 315, 320; Dan 2015).

Some examples could be presented to better explain specific aspects of the so-called winged disk.

First of all, some textual evidence should be mentioned. Assyrian cuneiform texts report about a victory by Tiglath-Pileser (745–727 B.C.E) over the Arameans. In a passage it is written that "the rest of their army that flew before the weapons of god Ashur, my lord, passed the Euphrates" (Grayson 1991: 23). It is just a vague description but it also could represent a good starting point. In fact, military insignia were very well known in Mesopotamian culture and it is obvious to deduce that Assyrians took with them in battle special banners surmounted by images of their god(s) in the act of fighting the enemy. In Assyrian reliefs divine images in the act of shooting an arrow usually inside circular frames superimposed on a pole were fixed to war chariots. This image responds exactly to the representation of a deity who has been identified with Nergal shooting arrows while standing on a bull in some reliefs from different sites attributed to the period between Assurnasirpal II (883–859 B.C.E) and Assurbanipal (668–631 B.C.E) (Bleibtreu 1992; Ornan 2005b: 90–91). Something similar can be observed also in neo-Assyrian reliefs specifically from the royal palace in Ninive (Dirven 2005: 124–125: 131).

One Neo-Assyrian cylinder seal (Black and Green 1992: Fig. 82) and one image on an Urartian bronze shield from Anzaf, in eastern Anatolia (Belli 1999: Fig. 17; Roaf 2012: Fig. 24.17), present complex scenes comprising also a human bust surmounting a winged disk (Figs. 5 and 6). In both images, a very interesting detail deserves special attention: the legs of the deity in the winged disk are actually represented as standing on the body of an animal according to a very well-known Mesopotamian religious iconographic formula. Since the human bust above the (much more ancient) winged disk appeared just in Neo-Assyrian and Urartian art to represent very important deities, it seems obvious to conclude that, in Achaemenid art too, the device under discussion was a divine symbol. In fact, as already observed above, this Achaemenid motif was borrowed from Neo-Assyrian and

Urartean official art. In the Iranian milieu the deity seems to be always the same and the best candidate seems to be Ahura Mazda who appeared in Achaemenid royal inscriptions since the beginning of that Persian dynasty (late sixth century B.C.E) although, slightly later, Anahita and Mithra accompany him as well. Unfortunately, all these inscriptions do not present any specific iconographical description. The human bust surmounting the spread wings in Achaemenid art is definitely male and, so, Anahita should be excluded. Moreover, that bust is very similar to the Persian king who is sometimes standing in front of it. For this reason, the human bust could be identified with a deity who was considered by ancient Persian as the king of gods: Ahura Mazda seems to be confirmed. An identification with a solar deity (like Mithra) in Achaemenid art could be possibly refused since, as already observed, at least one seal from the British Museum presents the winged ring surmounted by a human bust together with symbols for the sun and the moon. However, it should be observed that in Zoroastrian literature Mithra is not the sun itself but the personification of the solar splendor (Cantera 2017: 30).

In post Achaemenid art, representations of a human bust above a winged ring can be observed very often on the coins of the Fratarakas and the Kings of Persis (Fig. 7) (Klose and Müseler 2008). The winged bust appears usually above a building possibly to be identified as a temple worshiped by a person on the left while on the right stands a cultic (?) banner. Both the bust above the winged disk and the worshiper are represented with one hand in front of their face. Its earliest representation on Frataraka coins is dated to the reign of Vadfradad I in the second century B.C.E (Haerinck and Overlaet 2008: 208). Not only in the region of Fars the core of Persian culture and civilization but in other parts of western Iran, the human bust above a winged ring (or, in some cases, just the winged ring) appears on some funerary monuments that still presents chronological problems. Hubertus Von Gall preferred to consider them as dated to the period of Seleucid domination in Persia or a more generic post-Achaemenid period (Fig. 8) (Von Gall 1966).
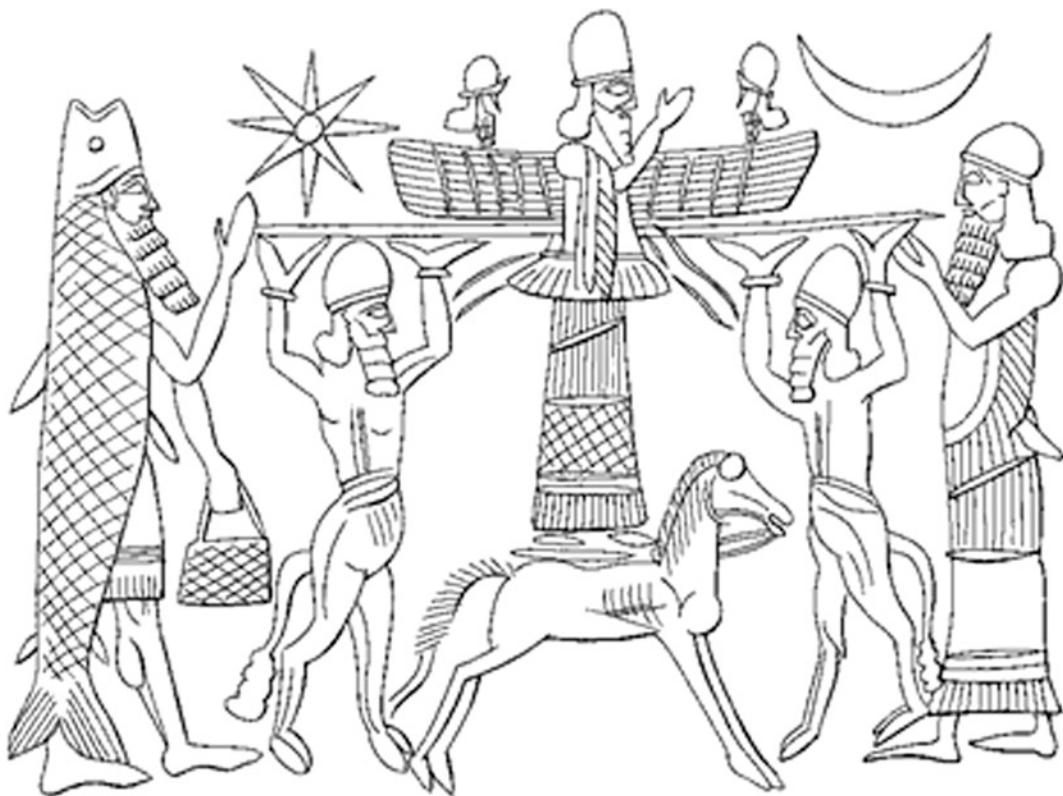
Fig. 5 Neo-Assyrian cylinder seal. *After* Black and Green (1992: Fig. 82)

Some scholars have associated this motif to the representation of the idea of *farr* (Avestan *xwarenah*, Old Persian *farnah*, Pahlavi *xwarrah*) to be translated as "glory", "charisma" or even "luminous aura".[2] This concept was definitely well known by the Achaemenids but it is only in a precise moment of the Sasanian period (in the fifth century) that the idea of "glory" (specifically the "glory of the Kayanids") became the main argument of legitimization of Persian propaganda (Gnoli 1999; Daryaee 2009: 24, 34). For this reason, the identification of the human bust above the winged ring as the manifestation of glory in Achaemenid arts does not seem to be completely convincing.

Just a pair of spread wings appear quite often in Sasanian art and especially on coins as a very important element of royal crowns (Fig. 9). In that case, spread wings reproduced in the upper part of the crown support astronomical elements such as crescent and stars. Scholars do not agree on the origin and meaning of Sasanian spread wings. One prevailing hypothesis considers those wings as possible elements to be associated to the Zoroastrian god of war and victory Bahram (Avestan Verethragna) (Compareti 2009: 10; Fontana 2012). It should not be ruled out the possibility that Sasanian spread wings represent a development of Achaemenid and Frataraka depictions of the human bust above a winged disk.

Before discussing about the connections between the human bust above a winged disk of the Achaemenids and the spread wings of Sasanian art something should be said about *xwarrah*.

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[2]See: Shahbazi (1974), Shahbazi (1980). According to Dietrich Huff (2008: 39), the wings of the symbol under discussion should be considered as an allusion to *xwarrah* while the human bust depicts Ahura Mazda.

Fig. 6 Urartian bronze shield from Anzaf (modern Turkey). *After* Belli (1999: Fig. 17)

It is not an easy task to decide if there is any connection between those spread wings and the manifestation of *xwarrah*. Some scholars consider this concept as central not only in Sasanian ideology of royal power but also in pre-Islamic Iranian arts (Soudavar 2003). Unfortunately, no textual evidence results useful enough in order to confirm all those identifications that should be considered highly hypothetical.

Some information really important for the correct identification of the representation of *xwarrah* in Sasanian art has been reported by Masudi (tenth century) and Biruni (eleventh-twelfth century). According to those Muslim authors, the "glory of the Kayanids" was called *Khorasan Khurra* "Glory of Khorasan" (*Gloria Orientis* according to E. Herzfeld) and it embellished one of the nine official seals of Khosrow II Parvez (590–628) (Cristoforetti and Scarcia 2013). Biruni even described the *Khorasan Khurra* as "flying foxes". When compared with pre-Islamic Iranian figurative arts, this information seems to point just to a specific fantastic winged creature with a dog's head and peacock

tail that can be observed also in late Sasanian art in the rock reliefs at Taq-i Bustan. On some seventh century Hunnish and Sogdian coins there are also some inscriptions together with a representation of that winged dog explicitly mentioning it in Pahlavi *xwarrah* and *farn* in Sogdian (Göbl 1967: 156–157; Nikitin and Roth 1995). Erroneous hypotheses formulated in the past identified this composite creature with the *Simurgh* (Avestan *Saena Maregha*, Pahlavi *Senmurv*) of Iranian mythology. However, the *Simurgh* was always described as a fantastic bird in Avestan and Pahlavi Zoroastrian literature and also in Persian texts from the Islamic period such as the *Shahnameh*. Moreover, the *Simurgh* has always been represented as a bird in Persian illustrated texts at least since thirteenth century (Compareti 2006a, 2019).

In the light of all these observations, it seems very likely that Sasanian artists already had at disposal at least one symbolic representation of the abstract idea of *xwarrah*. However, this does not rule out that other iconographies of *xwarrah* existed in Sasanian art. For example, circular

Fig. 7 Images on the reverse of Frataraka coins (c. II century B.C.E). *After* Haerinck and Overlaet (2008: pl. 2.2, 3.1, 3.3)
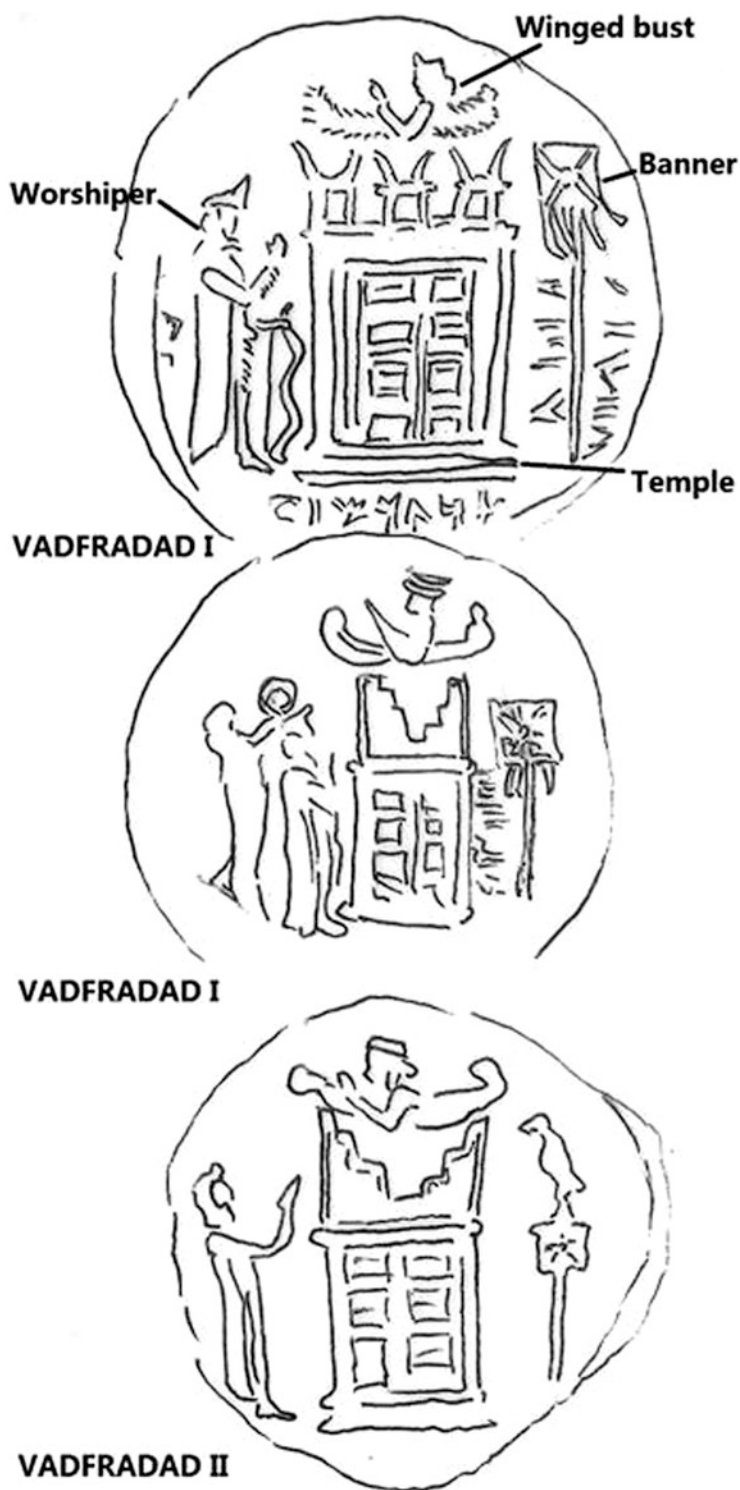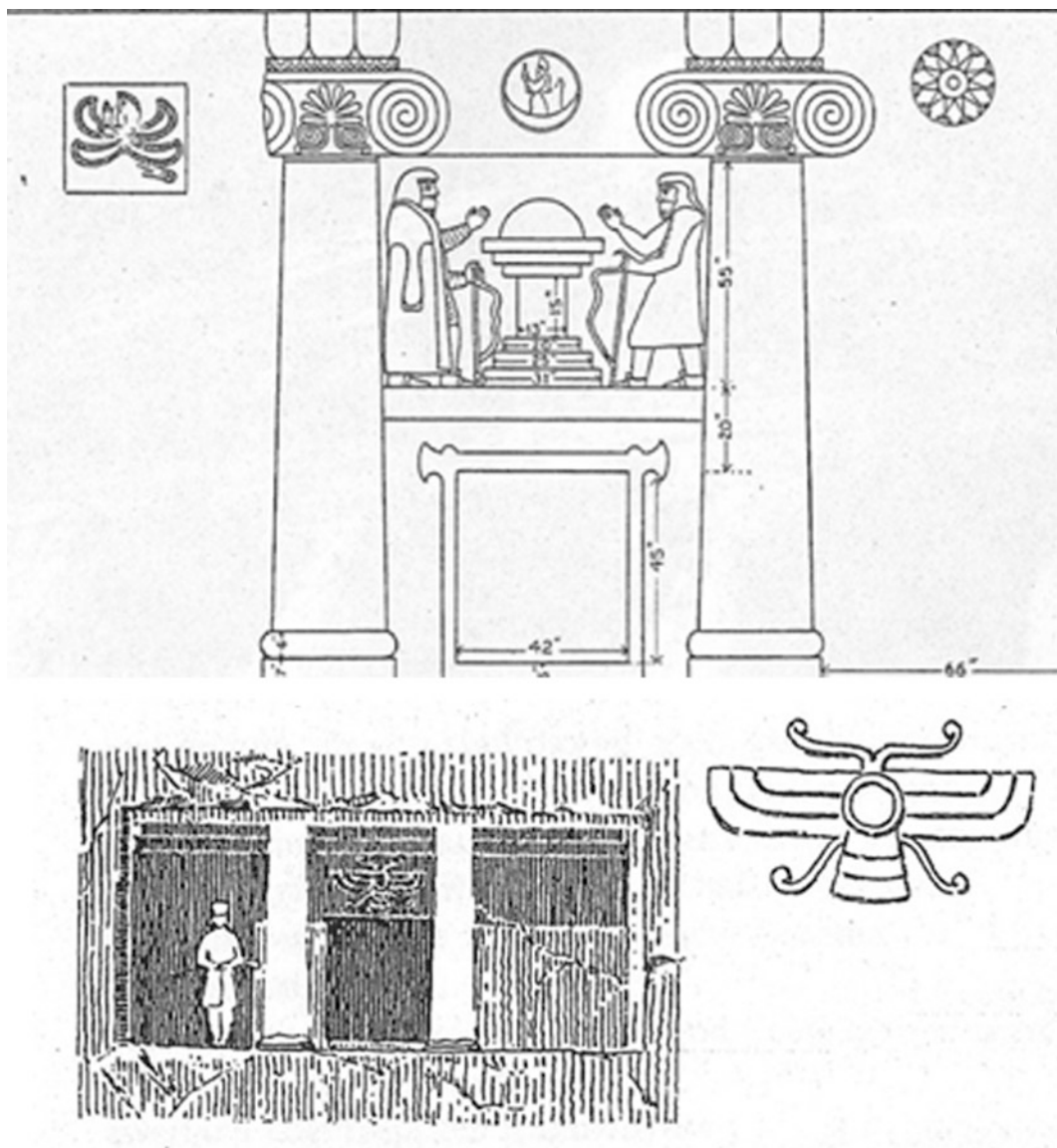
Fig. 8 Post-Achaemenid reliefs from Qizqapan (Iraq) and Sahna (Iranian Kurdistan). *After* Von Gall ([1966](): Fig. 5, 21)

haloes appear behind the head of Zoroastrian deities on Sasanian column capitals that have been collected at the park of Taq-i Bustan and at the Jome Mosque in Isfahan (Compareti [2006b](); Shenkar [2017](): 57). Such haloes could be considered representation of the idea of *xwarrah* as a divine splendor that characterized pre-Islamic deities and Sasanian kings as described, for example, in the *Shahnameh*.

Even if not all scholars seem to agree on this point, spread wings in Sasanian art could be intended to be an allusion to glorification of the subject that they support. Crowns are obvious symbols of kingship but it is not clear which meaning should be attributed to astronomical symbols embellishing them such as crescent and star. Are they symbols of kingship or possible allusion to the religious belief of Sasanian kings?
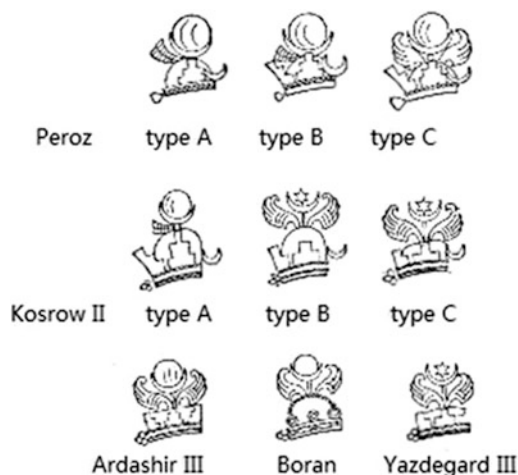
Fig. 9 Specimens of Sasanian royal crowns between fifth-seventh centuries. *After* Frye, Richard N. "La Partia e la Persia sasanide". In L'impero romano e i popoli limitrofi, edited by Fergus Millar, 270–292. Milano: Feltrinelli (1966: Fig. 4)

Crosses supported by pedestals in the shape of spread wings appear quite frequently among the Christian subjects of the Sasanian Empire such as Iberians, Armenians and Lakhmids. Since the cross is a clear religious element, it seems obvious to consider also the crescent and star on Sasanian crowns as references to pre-Islamic Persian religion (Compareti 2010). Those spread wings were definitely used to exalt or glorify specific religious elements that were kept in high esteem by Zoroastrians and Christians of the Sasanian Empire.

It is probable but not proved that Sasanian spread wings could represent a development of Achaemenid winged disks (with or without the human bust). Some simplification of the winged disk with human bust that was accepted also by the Fratarakas and the Kings of Persis should have taken place in Persia during the Sasanian period when a standard iconography for Ahura Mazda started to be used already under Ardashir I (224–242). One of the most famous rock reliefs of Ardashir I is the one at Naqsh-i Rustam where there is also one descriptive trilingual inscription in Pahlavi, Parthian and Greek pointing at the representation of Ahura Mazda beyond any doubt facing the Sasanian

king.[3] This observation is a further evidence to accept the identification of the human bust above the winged disk in Achaemenid art as a representation of Ahura Mazda and nothing else.

In this process of adaptation and transformation of ancient symbols, the role of Seleucids and Arsacids is completely unknown. However, it is worth mentioning one interesting decoration that appears in first century B.C.E Roman art and was described as "oriental" in inspiration. One painted decorative cornice in the House of Augustus on the Palatine Hill presents an unusual decorative scheme including an obelisk above spread wings (Fig. 10) (Compareti 2009: 12). Decorations like this can be observed sometimes in Hellenistic art. Among very interesting specimens one could mention terracotta antefixes from second century B.C.E main palace at Ay Khanum (Fig. 11). The motif includes spread wings supporting a central object (Tissot 2006: Fig. He. p.AK.P.38.2). The latter does not look like an obelisk but a kind of elongated "tear" element.

The obelisk was a very well known object in ancient Rome whose origin is definitely Egyptian. What could be said about the spread wings? It is not excluded that wings like this could have been used by Roman artists as well although the position under the obelisk in the decoration of the House of Augustus seem to point at spread wings used as a pedestal in much later Sasanian art. Romans and Arsacids were not in good relations in this period so it cannot be ruled out the possibility of some contacts between Augustus and more or less autonomous kingdoms of the Parthian Empire such as Persis. However, direct contacts with Persis do not represent the only possible scenario since many obscure points still remain. Cultural and artistic elements always freely circulated among those peoples who were enemies in ancient times such as in the present moment of time.

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[3]See: Shenkar (2014). It is worth remembering that at Naqsh-i Rustam there are also four Achaemenid tombs. Several Sasanians rock reliefs were carved just under those tombs that could have also inspired more than one generation of Persian artists. No divine busts but just royal busts sometimes appear above spread wings usually in the shape of vegetal elements: Harper (2006: 77–81).

Fig. 10 Decorative cornice in the House of Augustus, Palatine Hill Rome (first century B.C.E). *After* Compareti (2010)

Fig. 11 Terracotta antefix from the main palace at Ay Khanum (second century B.C.E). Photo: Matteo Compareti. Photo: Matteo Compareti

In conclusion, it is very likely that already during the period of Parthian domination in Persia some typical Achaemenid decorative elements had begun to be transformed into something else. Such adaptation of ancient motifs gave as a result the creation of the spread wings element that was going to be very popular in Persian art for a very long time span. This decorative element survived much longer than the Sasanians themselves and, in fact, it was adopted after some adaptations in Byzantine (possibly through the Christians of the Caucasus) and Islamic arts as well.

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Some Reflexions About Possible Urartean Influences in the Development of the Iranian Architecture Until the Very Beginnings of the Achaemenid Period

Alexander Tourovets

Abstract

New data and knowledge coming from excavations undertaken by our Iranian colleagues have led us to take account of these new considerations, the main issue of this article is to propose to the reader an improved research that could not be seen definitively conclusive but a new approach of the yet so far unsolved problem of the origins of the Achaemenid Architecture. The situation looks like a puzzle for the researchers because it is absolutely impossible that this Achaemenid Palace Architecture has not been tested before. The improvements in the researches are desperately linked to the hazard and the number of archaeological discoveries in Iran. At least, we could not speak about a sudden appearance of the architecture because we can observe large scale architecture displaying some very well organized layouts and even some regional building traditions. Very strikingly, many of these sites of the Zagros area display common architectural features with the Urarteans buildings and the northern Mesopotamia. However, theses comparisons must take account of the differences in the arrangement of the internal circulations between the different parts of the buildings. This research must remain the great priorities for the architectural analyses.

At the end of the Congress of Archaeology held in Malayer in May 2014 (Ordibehesht 1393) we have had a lot of highly interesting debates about the new orientations initiated by the current archaeological researches in Iran. New data and knowledge coming from excavations undertaken by our Iranian colleagues have led us to adapt and revise some of our opinions issued in some of our previous publications. Taking account of these new considerations, the main issue of this article is to propose to the reader new ideas and updated reflections on the development of the incipient Iranian architecture. However, this improved research could not be seen as conclusive but to approach sites or so the yet so far unsolved problem of the origins of the Achaemenid Architecture.

The origin of the debate must be explained by the difficulty to imagine the construction of the buildings on the Great Terrace of Persepolis and especially the Apadana as the immediate outcome of a pure theoretical intellectual architectural concept following a royal order. By no means can this possibility be considered likely.

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Of course, the great challenge for the archaeologist is to bring some material elements to answer to the main question: are the buildings of Persepolis and Pasargadae the ultimate examples of a continuous line of improved building methods in which the architectural development is linked to the evolution of forms, layouts or techniques?

Curiously evidences of architectural monuments dating back of the pre-*Achaemenid period are till now scarce or* very difficult to distinguish even in this central area of the Empire. Of about a twenty sites related to this era no single displays any architectural layout equivalent or comparable to the large Achaemenid palaces of Persepolis, Pasargadae, Susa and even to the Dasht-e Gowhar pavilion. This situation looks like a real puzzle for the researchers. As regards to the use of sophisticated methods of building and the skill of the builders in these construction, it's absolutely impossible that this Achaemenid Palace Architecture has not been tested somewhere else. Of course, this situation depends greatly to the till now low number of archaeological discoveries in Iran.

Contrary to the Fars, the historical and archaeological situations in the Western Zagros area are quite different. Here archaeological excavations have unearthed some major buildings dating mainly back to the ninth and the seventh centuries B.C., at the sites of Nush-i Jan, Baba Jan (level I and II), Hasanlu (level IV) and Godin Tepeh (Level II) (Fig. 1) and recently in the sites of Mush Tepe (Mohammadifar et al. 2015), in Ozbaki (Stronach 2003), and Gunespan (Naseri and Malekzadeh 2016). Here, we could not speak about a sudden appearance of the architecture because we can observe large scale architecture displaying some very well organized layouts. The great difference with the situation in the Achaemenid Fars may be underlined by the existence of some regional building traditions, which date before the Ist millennium B.C. and have produced at that time some very original constructions (Godin V, Hasanlu V, Giyan III-II, Haftavan VI-V, Kordlar).

Very strikingly, many of these sites of the Zagros area display common architectural features and layouts like the columned halls, the columned porticoes, the systems formed by the entrance's group of rooms (antechamber, vestibule, portico, stairwell) and the buttressed facades of some large buildings.[1] However, we have to recognize that the comparative approach never should be limited only to the architectural forms, and more particularly without an appropriate and useful comprehension of the layout.[2] Comparing two architectures must take account of the arrangement of the different groups of rooms and spaces which generally create a specific system of internal communications between the different parts of the buildings. The identification of the internal system of connections must be one of the great priorities for the architectural analyses of the remains of the ground floor of the constructions.

From all of them, we can analyse the functioning of a group of spaces formed by the portico and the antechamber bordered on its short sides by a stairwell and by a room. In short, we are puzzled to observe that this architectural layout seems to have been repeated from one site to another as it would have been the case for a model of plan. We can easily compare for example, the different layouts of the access to the buildings especially the arrangement of the entrance group of rooms in most of the Hasanlu 's *Burned Buildings* (Level IV) (Fig. 2). A similar system showing a bent axis created between the antechamber and the main hall can be observed in the *Central Temple* and in the *Fort*

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[1]Young (1994) asserted that Hasanlu and Godin shared some basic important features that seemed to define the columned hall for example: the benches along the wall—the hearth—the «seat of honor»—the anteroom—the stairwell beside the anteroom (conjectural at Godin but well documented in Hasanlu)—the bases as flat stones set in the floor and smaller stones or mud brick or mud plaster forming a surround around them. We have to remark the absence of the first five features in the Nush-e Jan columned hall.

[2]Margueron has pointed out the problems related to the architectural volume through some very outstanding examples of an inappropriate lecture of the plan (Margueron 1986: 264).

Fig. 1 Map of the north western part of the Zagros (with sites cited)

of Nush-e Jan (Fig. 3).[3] Could we speak here about a (recurrent) hallmark of the Architecture? The passages leading from the outside into the vestibule and then from this vestibule into a main (columned) room are placed on different axis excluding any possibilities for direct eyesight through any intermediate space. Such circulation leading from the outside of the entrance to the main part of the building (central hall) can be paralleled in the two groups of buildings with no difficulties.

However, a careful comparative observation of the architecture in the neighbouring areas brings to light the existence of some architectural similarities—but also discrepancies—with many buildings belonging to the chronologically older architecture of the kingdom of Urartu in Eastern

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[3]The badly preserved state of the entrance's group of rooms leading to the Great Columned Hall in Godin (level II) makes the comparison very hypothetical even there are some clues of its existence. (See: Cuyler Young 1969).
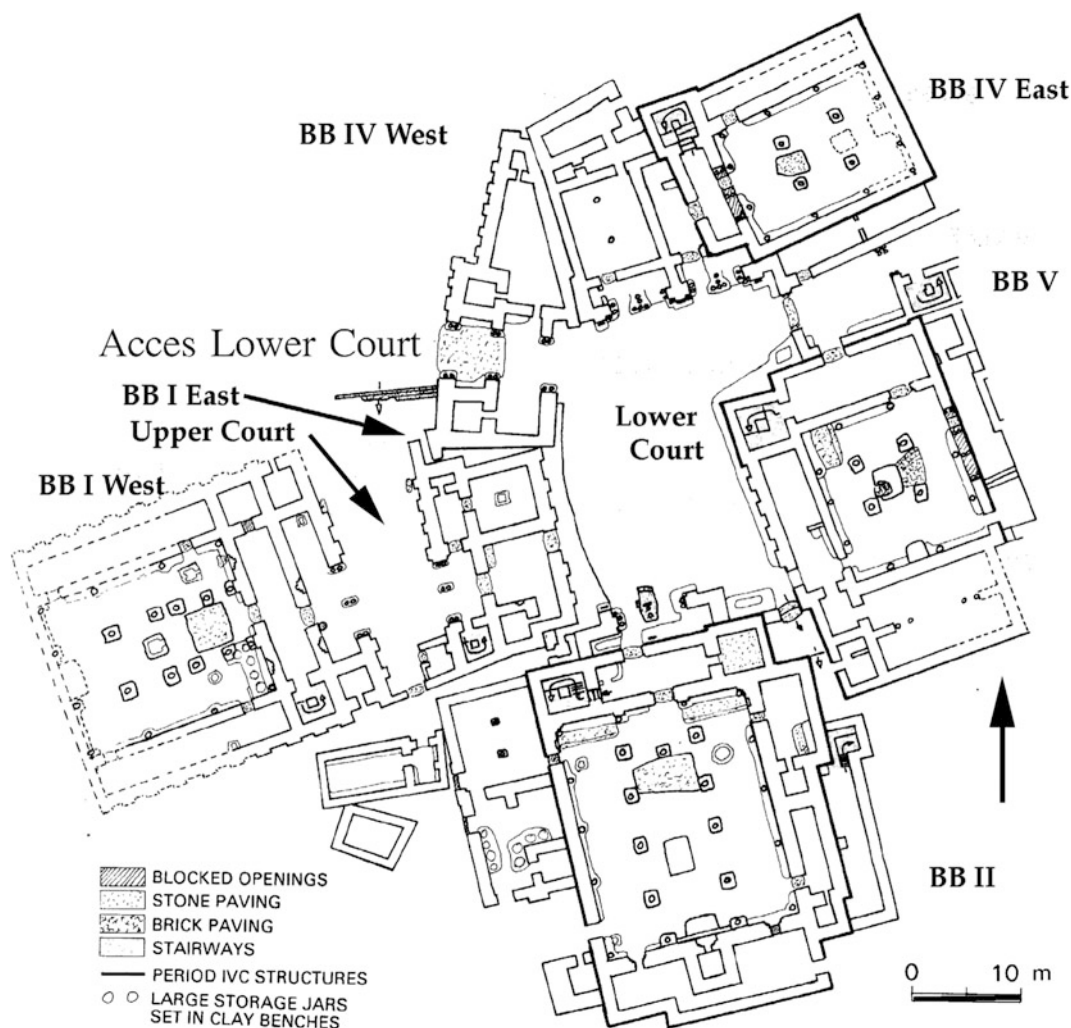
Fig. 2 General plan of the Burned Buildings group at Hasanlu (level IV-8th c. B.C.)

Anatolia.[4] However, both architectures obviously show the use of two different methods of buildings. The significant difference is shown by the Urartean architecture where thick stone foundations and regularly hewn blocs—some of them of great dimensions—have been used for the wall basements in contrast with the buildings of the Zagros built with mud bricks structures and exceptionally with stone foundations (Baba Jan and the towers of the defence wall of Godin II).

According the use of different building methods through the history of Urartu, we can easily distinguish all the steps of a long period of maturation and improvements. Unfortunately, it's less clear for the mudbricks constructions in the Zagros sites.

When and how the influence of Urartean architecture reached the Zagros area is not perceptible. The archaeological excavations have only shown that the great development period of this incipient Iranian architecture is not dated prior the second half of the seventh century B.C. In Godin Tepe (Fig. 4) and Tepe Nush-I Jan it's possible to distinguish the set up of programmes

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[4]Johnson has dressed in her conclusion an exhaustive list of the similarities between the two architectures (Johnson 1975: 34).
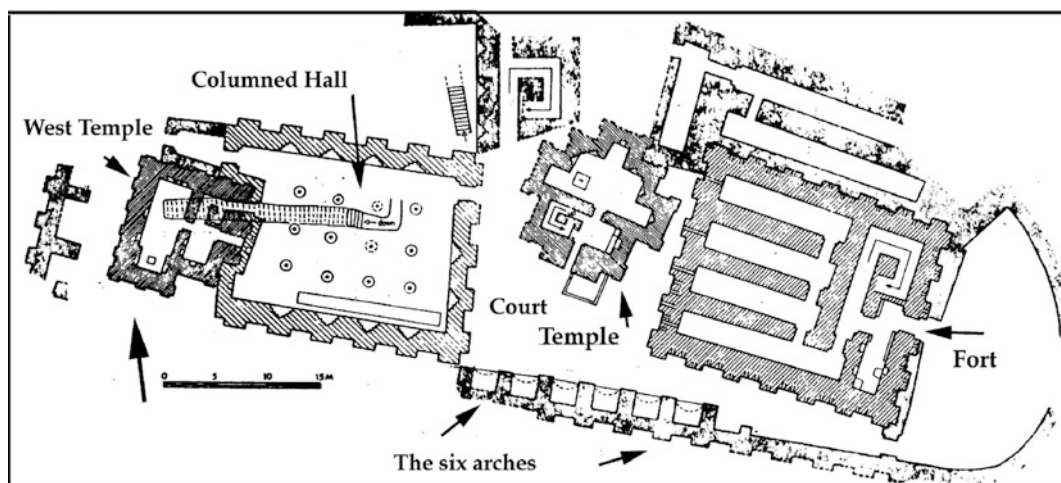
Fig. 3 The site of Nush-i Djan (7th c. B.C.) (Stronach and Roaf 1978: Fig. 1)
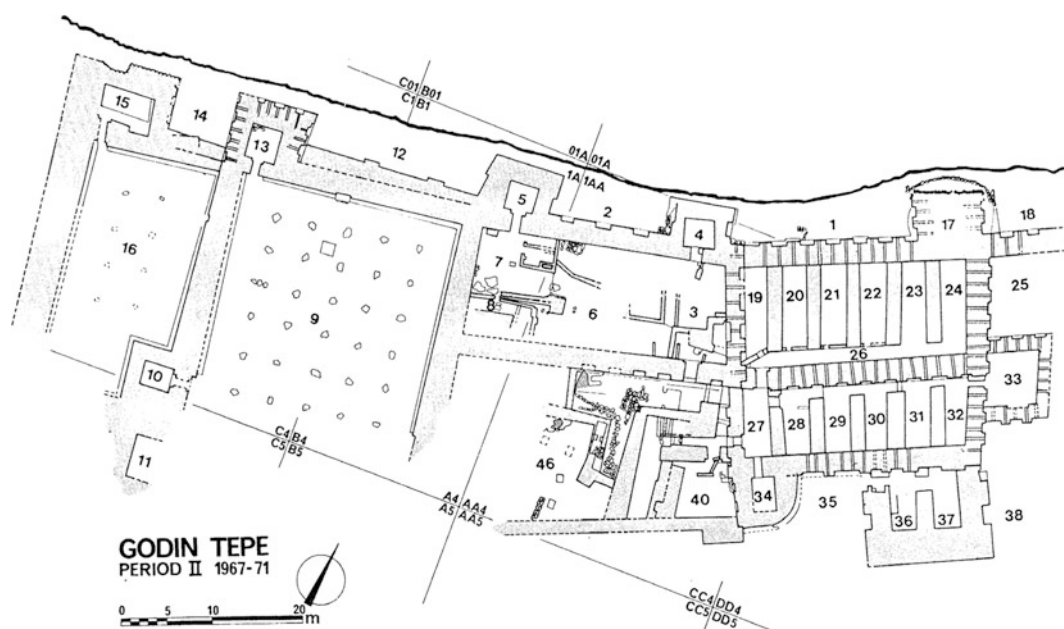

Fig. 4 General plan of Godin Tepe (level II) (Young 1967: 116). The great columned hall is on the left (west) side

of constructions that could be linked to a similar scale of what has been undertaken in the Urartean sites. Of course, we have to bear in mind that first of all an architectural construction reflects the technical capacities and abilities of the builders, and particularly when the maximal efficiency has been aimed whatever the form and the purpose of the structure built.

The influence of the Urartean architecture in the Zagros could be first observed through the choice shared by the Urarteans and the Iranians for setting their sites on the summit of a hill which overlooks the environs. Of course, the needs of defence can be easily explained but as we will see hereafter it's not the only reason for such a choice. As we can observe there are strong

similarities between some layouts and internal organizations of the fortresses.[5] Moreover, the builders have chosen to surround their sites with strong fortifications walls strengthened by buttresses and projecting towers.[6] We are very puzzled to observe that some of the buildings in Nush-e Jan and Hasanlu (*Burned Buildings* I, V, VI, VII and the *Upper Gate*) have some of their external walls reinforced by buttresses like it's the case in many buildings in the Urartean sites. Also, the so called *Manor* of Baba Jan (level II) (Fig. 5) displays two projecting towers at the corners of its main facade and this layout can be paralleled to the corner buttresses of some Urartean forts like those of Aragatch Kale and Sequindel.[7]

According to the chronological difference between the two groups of buildings and the neighbouring geographical situation of their areas, it's not impossible that many of the architectural analogies we can observe should be related- at least-to a contact with or an influence from the Urartean building techniques. Taking account of the high technical development reached by the Urartean builders from the start of the eighth century B.C. (if not before) with their more developed stone constructions, it's not unreasonable to think that this long architectural tradition led the Iranians of the Zagros to adopt or to reproduce some features as models even they were obviously here of limited scale. We do not believe that only the material of construction used in the Zagros area could explain this

situation, we prefer to call into question the inexperience of not enough trained builders in creating very large scale buildings.

If the sudden development of the incipient Persian architecture seems to be linked to a highly probable Urartian influence and taking account of the geographical distance that separate Urartu and the Persian homeland (the Fars), the problem is to determine how all the architectural knowledge have been carried on and transmitted.[8] Two monuments allow us to believe a possible heritage coming directly from Urartu.[9] The first monument is situated in Pasargadae in the so called *Zendan* and the second can be observed in Naqsh-i Rustam the so called *Qa'ba-e Zardusht (Bon Khanak)*.[10] These monuments are both square-like bastions adorned with four corner buttresses. They have sidewalls decorated with blind windows and narrow rectangular blind niches like arrow-slots. At the summit, we can observe a row of dentils (as ends of beams) jutting from the facade just below the cornice.[11] The structure of the basement of both Persian monuments shows striking similarities with those of the

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[5]For example, the internal organization of the site of Armavir (Ter Martirossov 2001) can be compared with the one of Godin Teppeh (Young 1969).

[6]Like in Hasanlu III or Agraptepe these two sites can be paralleled with the buttressed walls of Godin Teppeh (Dyson 1989: 5–7). On the reliefs depicting the military campaigns of Sargon II, we can observe that the Iranian fortresses are surrounded by two lines of fortification walls strengthened by high towers or buttresses. These towers are higher than the line of the crenelated parapet of the walls and a set of narrow windows have been fitted out at their summit just below the crenelated Platform (Gunter 1982: 109).

[7]For Aragatch: Forbes 1983: 16; Kleiss 1988: Fig. 1. For Sequindel: Kleiss (1968: 42–44). Kleiss und Kroll (1980: Fig. 11), Oganesian 1958.

[8]According some previous published studies, the Medes are considered to have transmitted to the Persians their knowledges in architecture. Such assessment is based on the location of the main Zagros sites which have produced an architecture of outstanding importance in a territory once inhabited by the Median tribes according the Assyrians written sources. By no means we have some asserted material documents that can prove the ethnic origin of the local populations. At least, a Median aristocracy is supposed to have controlled some large areas of the Zagros from the second half of the seventh century only (Medvedskaya 1992 (with caution). Sancisi-Weerdenburg 1988, 1994. Reade 1995: 39. For an opposite opinion, we read the well-argued studies of Genito (1986: 50, 1995).

[9]A third monument located in the vicinity of Nurabad (Southeastern part of the Fars) has been added by Ghirshman to the two others despite the architecture of this building obviously shows strong discrepancies with the former ones mainly in the existence of a stairwell inside the building and a crenelated platform at its summit (Ghirshman 1944: p. 175), Kleiss (1972: 200–204).

[10]For these two monuments in Pasargadae, see Stronach (1978: 130–137).

[11]Recently, Roaf has focused on the similarities of this motif with those we can observe on the facade and in the niches managed in the walls of the Central Temple at Nush-I Jan (Roaf 2010).
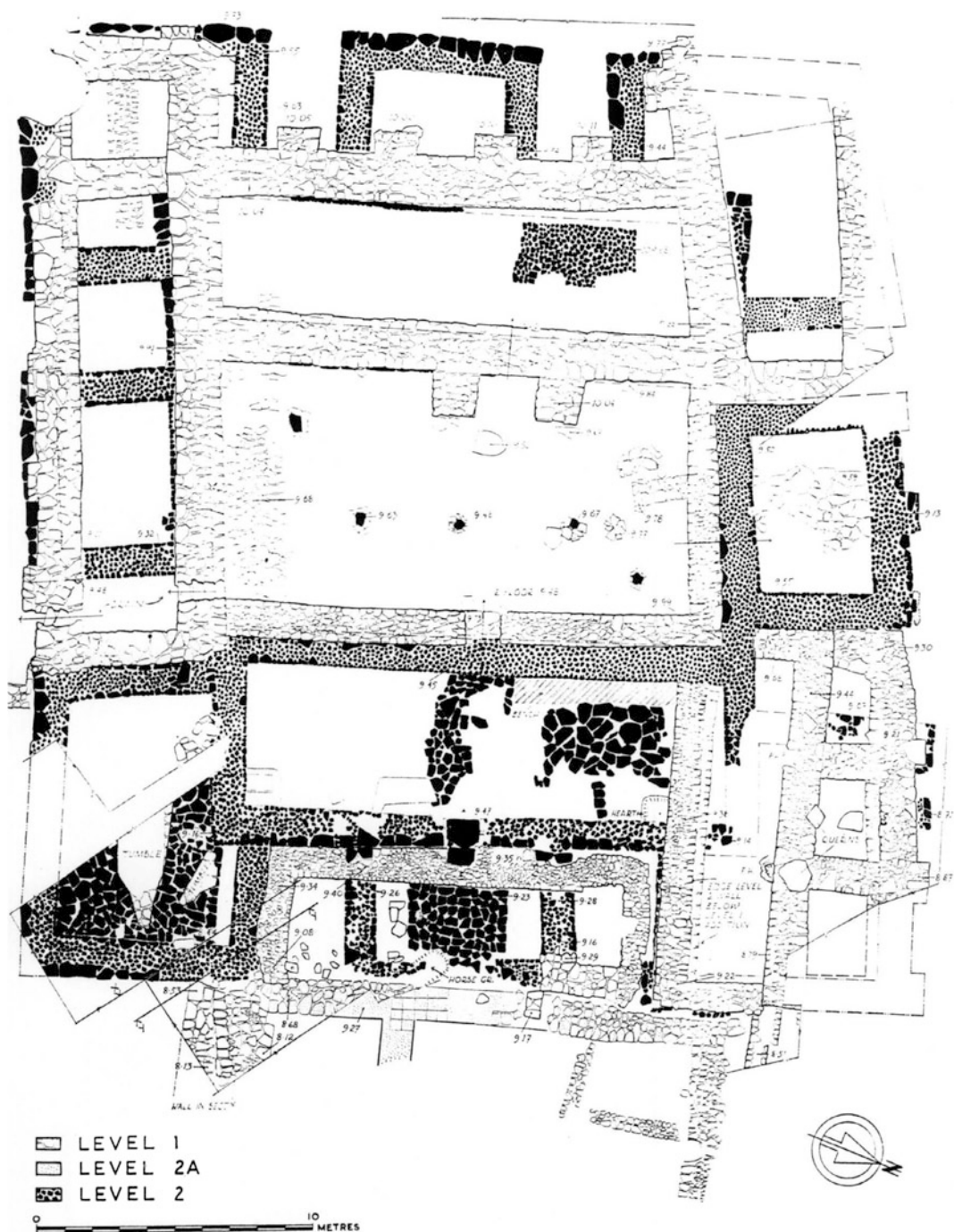
Fig. 5 Plan of the Manor of Baba Djan (level 2: former stage—level 1: later stage) (Goff 1969: Fig. 3)

Urartean temples-towers even they are given a reduced scale (Fig. 6). Both have a unique central inner room. However, contrasting with the Urartean models, the particularity of the Achaemenid buildings is to have their entrance located at some height in the main facade and accessible by a stairway. The existence of this later marks the main difference between the two types of
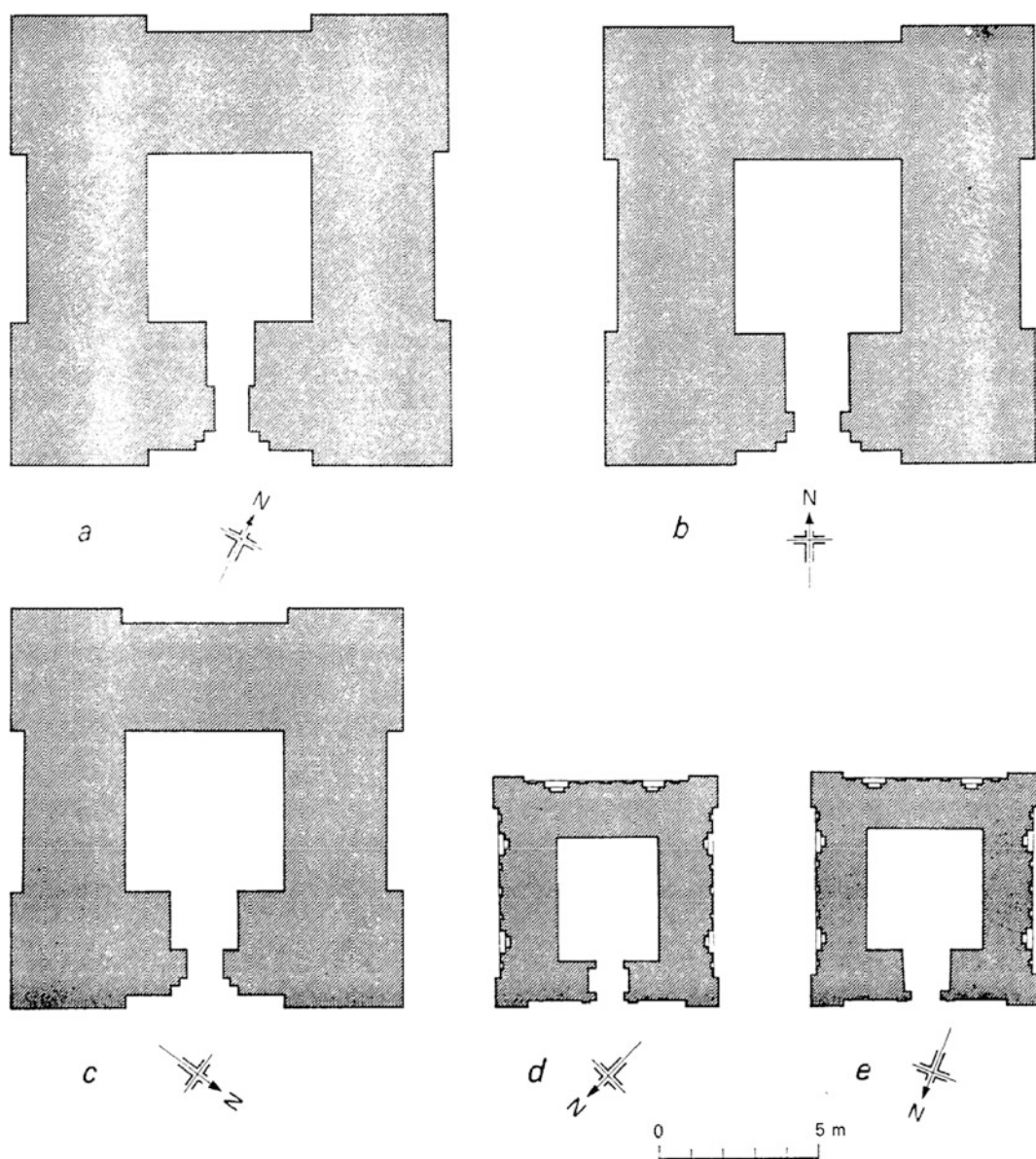
Fig. 6 Urartean Tower-Temples (plans **a**–**c**)—the Zendan (plan **d**) and the Qa'ba Zardusht in Naqsh-e Rustam (plan **e**) (Stronach 1978: Fig. 68)

monuments. Until now we could not explain the reason of this outstanding architectural difference.

Beyond the existence of these relations between the Urarteans and the Achaemenians, a very important question is linked to the origins of the great columned halls and their architectural connexion with the columned porticoes of the entrance. Obviously, both structures can be considered for long as characteristics of the Achaemenid architecture.

The archaeological excavations have revealed the existence of columned halls on four main sites of the Zagros. In Nush-e Jan, a building of 20 m long and 16 m/15 m wide with 3 rows of 4 supports each regularly laid has been discovered (Fig. 7). Probably the date of this construction
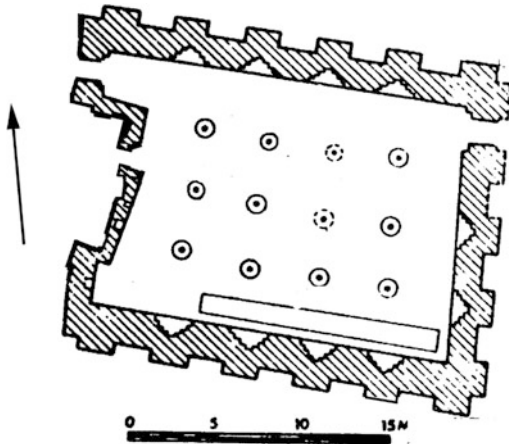
Fig. 7 Nush-e Djan. The Columned Hall (Young 1994: Fig. 4)

goes back to the first quarter of the seventh century B.C. and according to this it may be considered as the first example built in Iran. Its slightly irregular plan and the positions of the two entrances on its west and east sides seems to reveal that the construction was built after the others in an available place left free between the *Old Western Building* and the *Central Temple* (Fig. 3). The inner walls are decorated with deep stepped recessed niches, which are of the same type and the same dimensions as we can observe in the Urartean buildings. The architecture of the hall with its original entrance shows a layout very close to the one of the building in Altintepe (Fig. 8) however most probably built at the beginning of the Achamenid period.[12] Very curiously and unlike what is generally expected in such a construction the hall was only entered by a non-axially door through a little vestibule. In the building of Nush-e Jan, a similar room (room 38) seems to have played the same function. It gave access to the columned hall through an alcove pierced in the north-western corner of the west wall. Beyond this comparison of structures the existence of this passage seems to demonstrate that the layout of the columned hall with its access may be nor accidental or fortuitous.

Recently Gopnick has asserted that until proof of the contrary, the columned halls with regularly spaced supports are not known in the Urartean architecture (Gopnick 2010: 201). It has been proved that the examples unearthed in the territory of Urartu (Arin Berd, Altintepe, Armavir) have all been built during the Achaemenid period and not before (Ter Martirossov 2001; Summers 1993). If we agree with her for that point it's not unreasonable to think that the architectural principle of supporting roofs or floors (sometime for large surfaces) with regularly laid pillars has been brought from the mountainous Urartu (where it's obviously useful) to the lesser steeply area of Iranian Zagros. At least the Urartean influences could have successfully improved the methods of building of the Iranian builders whatever the landscape in which their constructions have been built. The great technical skill developed by the Urartean builders through the 8th and seventh centuries B.C., could not be reasonably considered otherwise than the outcome of a long experimentation's period.

In Çavushtepe (Eastern Anatolia) the excavations have revealed a very large building known as the *Pillar Building* sometimes called the *Palace* (Fig. 9). Here a long central hall (81 m long on 15 m wide) with two rows of piers is bordered by rooms, which are directly accessible by the side corridors. The access of the building is located at the eastern end of the south corridor and a flight of steps is observed at the west end of the same corridor. The heavy piers are supposed to have supported the floor of a second level on which other pillars or beam placed up at their top have served to support a third level or the ceiling of the building. This suggestion is proposed taking account of the existence of cisterns in the floor of the basement and the dimensions of the pillars.

However, it's not impossible that the wooden galleries or balconies have been placed around the central space.[13] In that case, this basement

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[12]Most probably the monument dates from back the first half of the 6th c. B.C. (Özgüç 1969: 76), Summers (1993: 93), Özgüç (1966: 44–45).

[13]Dyson proposed to reconstruct the inner space of the Megaron 3 of Gordion (Yassi Höyük) with balconies placed at some height around a central space. Of course, here the wooden galleries are supported by beams and not by stone pillars (Dyson 1980: Fig. 2).
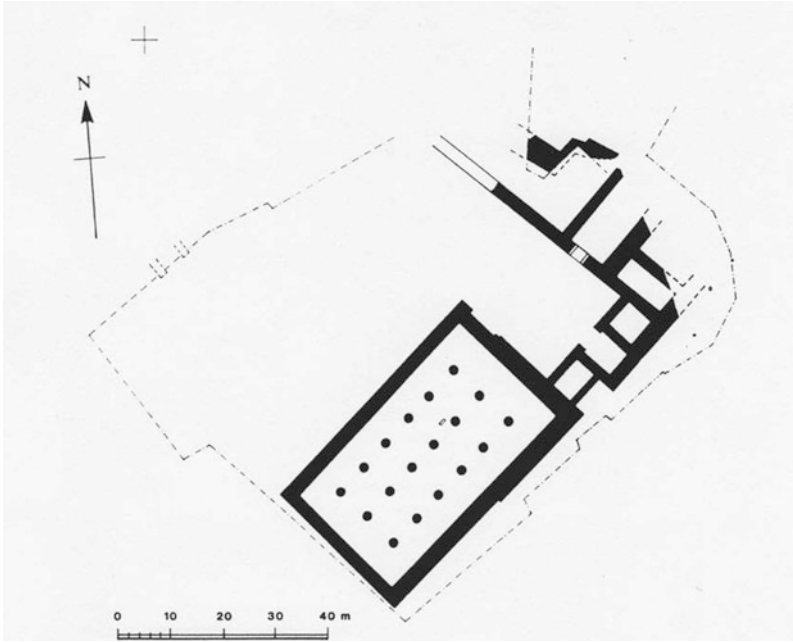
Fig. 8 The Achaemenian Columnbed Hall of Altintepe (Summers 1993: Fig. 4)
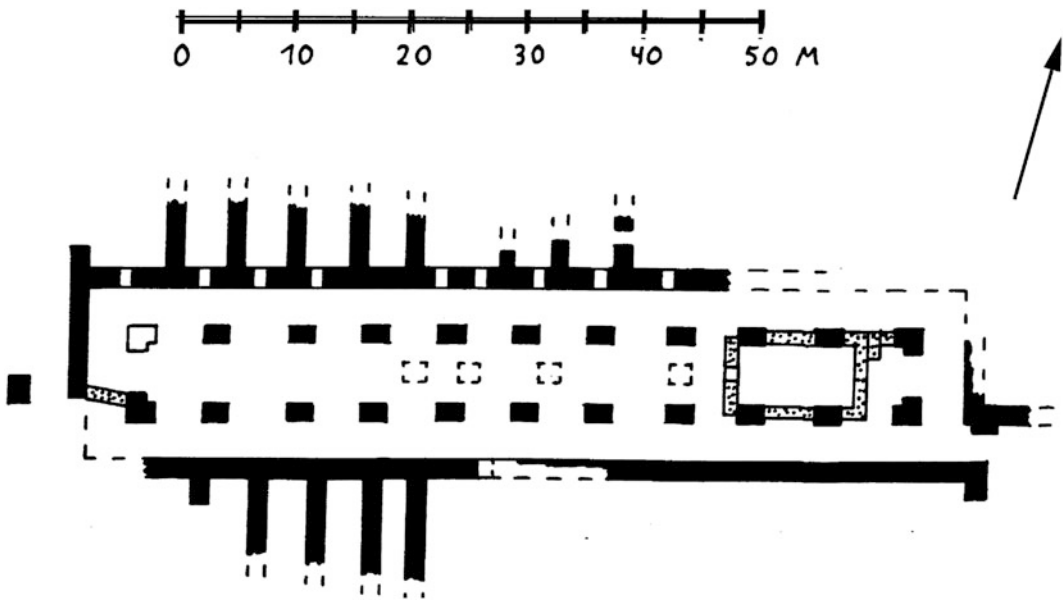

Fig. 9 The Hall with Pillars "Palace" (Kleiss 1988: Fig. 13)

level was left unroofed and this suggests that according the needs for airing and lighting the roof of the building was placed on a higher level than the one covering the surrounding rooms. In Kefkalesi near the city of Adilcevaz and also in Urartean Area a similar type of architecture has

Fig. 10 Plan of the Palace of Adilcevaz/Kefkalesi (Kleiss 1988: Fig. 14)
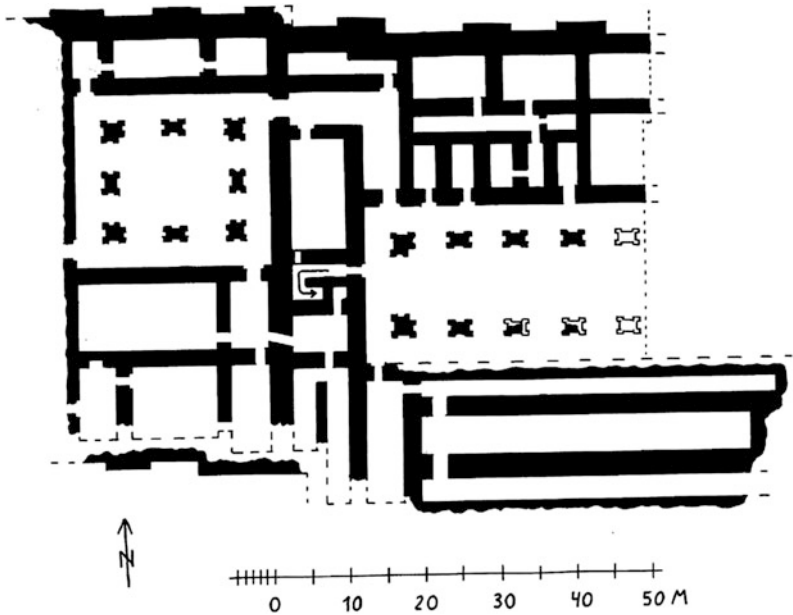
been unearthed revealing two different forms of halls (Fig. 10). In the long one, the piers are supposed to have supported balconies topped by a roof like we have seen for Çavushtepe. For the almost square hall, the dimensions (26 m long on 23 m wide) could not suit for an extended roof covering entirely the space. In the columned hall of Palace P in Pasargadae the analyse of the layout shows that pillars of roughly the same dimensions built in baked (?) bricks have once existed (Fig. 11). Here, they were lined in two rows placed along and at a very short distance from the side walls of the central hall. According their location in the hall and their form it's not unlike they supported also heavy balconies (Stronach 1978: 85–88; Huff 2010: 340–342). The comparison seems quite plausible according to the heavy form of the pillars and their use instead (beside) columns. The possibility that once there were two or three–storied private apartments in the empty areas flanking both sides of the hall (between the two long columned porticoes) is now admitted by all since the works of Sami (1971) and Stronach (1978) in these areas. Huff established an architectural comparison with the inner space organisation of some well known historical palaces in contemporary Iran.[14] Indeed, balconies were the only way to allow some people coming from the private apartments to attend to the ceremonies performed in the hall.

If this hypothetical reconstitution of the inner space organisation could be regarded as probable it may affect our architectural conception of some columned spaces like for example the central hall of the *Burned Buildings* II (Hasanlu) (Fig. 12). Indeed, Dyson has remarked that five columns were placed along each of the west and east walls of this hall, and two others against each of the north and south walls. These supports mark the extremities of the two rows of self-standing columns. These observations make the existence of balconies possible because the fitting out of these columns at their places could not be explained otherwise without any difficulties (Dyson 1980). Very similar arrangements of columns can be observed in the others two-rowed columned halls (for example in Hasanlu).

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[14]Recently Huff gathered together all the theories about the existence of private apartments in the two areas flanking the main hall (Huff 2010: 338–341). Even if these areas are devoid of any surviving architectural structure the suggestion could be now considered likely (Huff 2010: 339; 2005: 376–377).
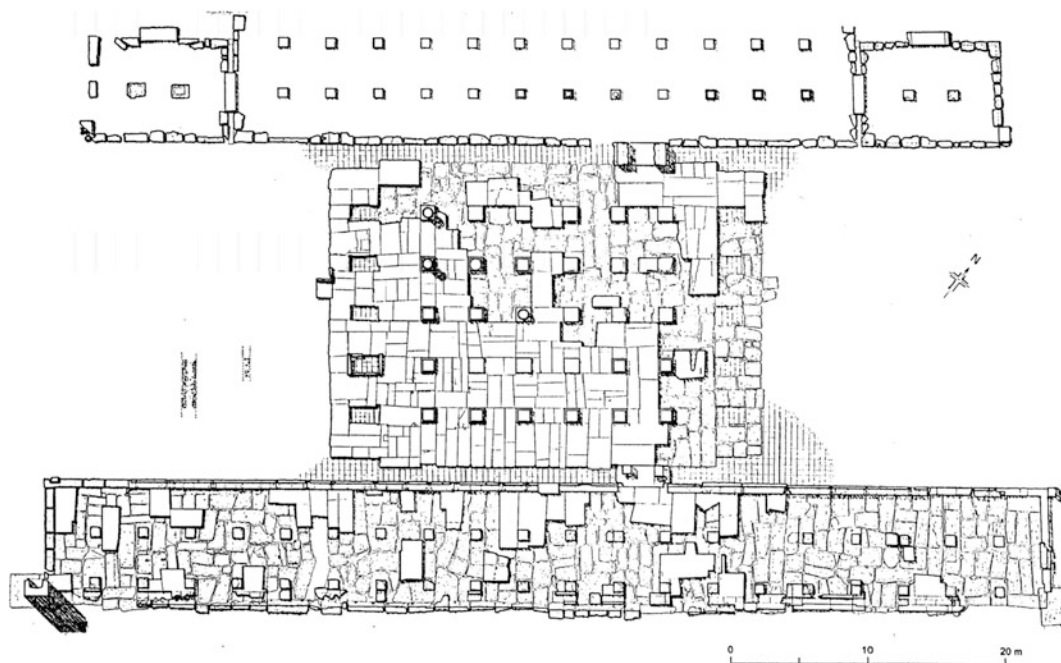
Fig. 11 Plan of the Palace P at Pasargadae (Stronach 1978: Fig. 40)

According to this layout we suggest that the examples given by the Nush-e Jan's three rows columned hall and the Godin's five rowed one represent a completely new architectural principle. If there are no more possibilities to place some balconies overlooking even partly these inner spaces, the former division of the inner space between central and side aisles doesn't exist no more. Instead we have an impression of multi-axial dimension that may emphasize the impact of the public ceremonies like for example in the multi columned *shabestan* of the many congregational mosques in Iran. With such buildings and we will see hereafter the columned halls of Nush-I Jan and Godin, it is clearly possible to make the link with the Achaemenid examples.[15]

The so-called temple of Haldi in Arin Berd (former Erebuni in Arménia) is particularly interesting for the development and the transformation of a columned space that formerly (i.e. in the first half of the 8th c. B.C.) played the role of a large vestibule with two rows of six columns each at least in its first stage of use (Fig. 13). The ancient Urartean portico flanked on its short side by a stairwell appears to have given access from a court to a long room bordered by a little square chamber. During the Achaemenid Empire the building was extended and the former portico was included in a great square hall with five rows of six columns each (Second stage of the building—Fig. 14). This last example can obviously support a comparison with the architectural layout of the Achaemenid palaces even and very surprisingly if this hall was entered by a non-axial door. This entrance connected the great hall

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[15]Recently Gopnick (2010: 197–199) has pointed out that the theory of a linear evolution (or continuous evolution) of forms and spatial organization from the columned halls of Hasanlu towards the Apadana is by no means easy to hold. We think that she is too much attached to the formal and structural comparisons. We prefer to speak about a challenge between a possible influence and a presumed inspiration or even a possible local self-expression

architectural creation. Indeed, we sometimes attach on structures more values or more meanings than they can really bring to us. We must not forget that the partially preserved structures on the ground are the sole available marks to reconstruct the architectural volumes (Margueron 1986).
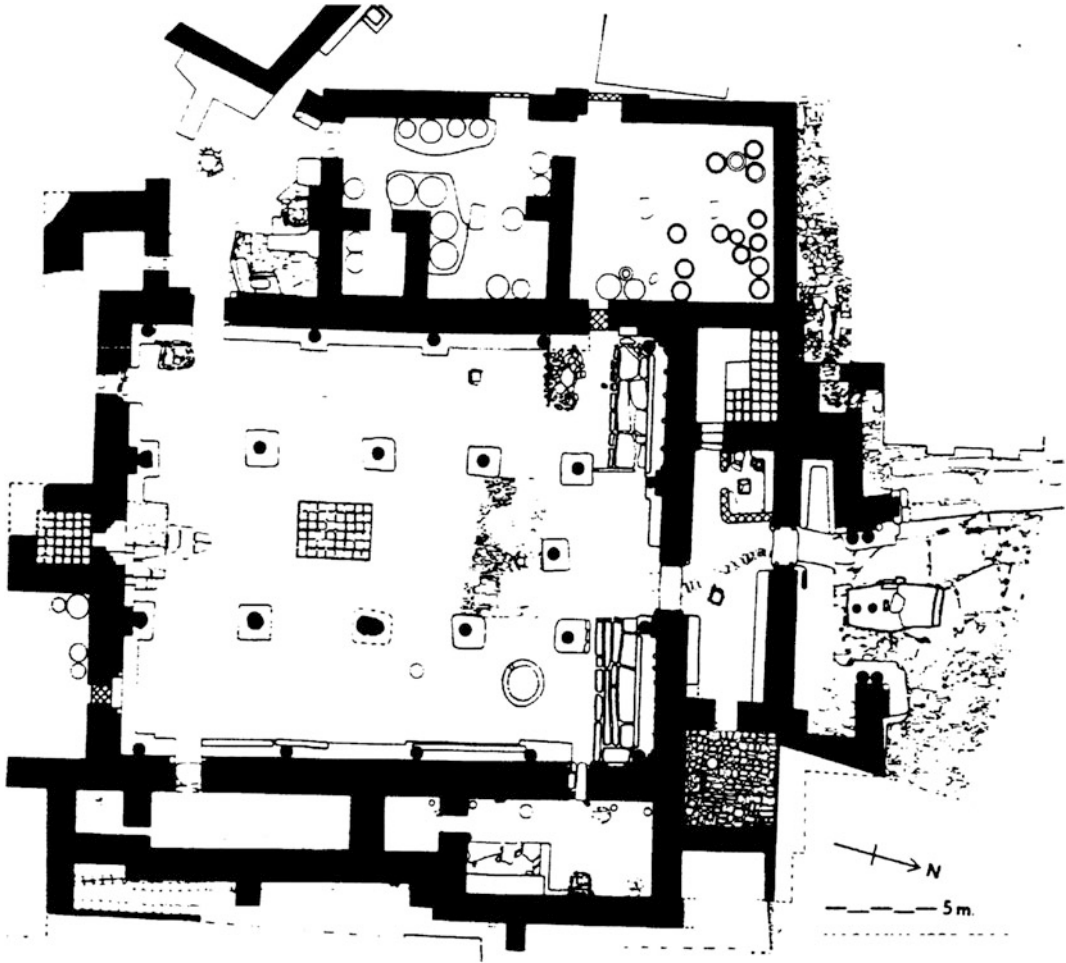
Fig. 12 Plan of the Burned Building II at Hasanlu (Young 1994: 27)

to a portico-like space joining directly the rear part of the fortress' gate. At the beginning, the building displays a layout that curiously could be put side by side with those we have observed in the buildings in Hasanlu (the *Burned Buildings* of level IV) (Fig. 2) and in Nush-I Jan (*Central Temple* and *Fort*) (Fig. 3 and Fig. 15). Indeed, we can observe in all of these constructions that the long antechamber (which supersedes the former portico) is flanked by the stairwell and the little room. The columned portico of the entrance, lacking in the buildings of Nush-e Jan, has been moved forward to be placed in the front of the former antechamber. On the same way, the portico has been flanked by one or two little guardrooms (Burned Buildings I, III, IV, and the

first stage of V[16]), or moved outside along the main facade of the building (Burned Buildings II) (Fig. 12).

In Arin Berd, we have to pay attention on the transformation of an inner hall which formerly played the role of a large portico with 2 rows of 6 columns. The Achaemenian builders developed from the portico of the former Temple of Haldi a great square hall with 5 rows of 6 columns each. We have to note that they didn't have had the possibility to place the entrance in the former part of the building because the rear part abutted the fortification wall along the edge of the slope

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[16]For the discussion about the Burned Building V, see: Dyson (1980: 150 f).

Fig. 13 First stage of the Temple of Haldi at Arin Berd (Armenia) (Forbes 1983: Fig. 39)
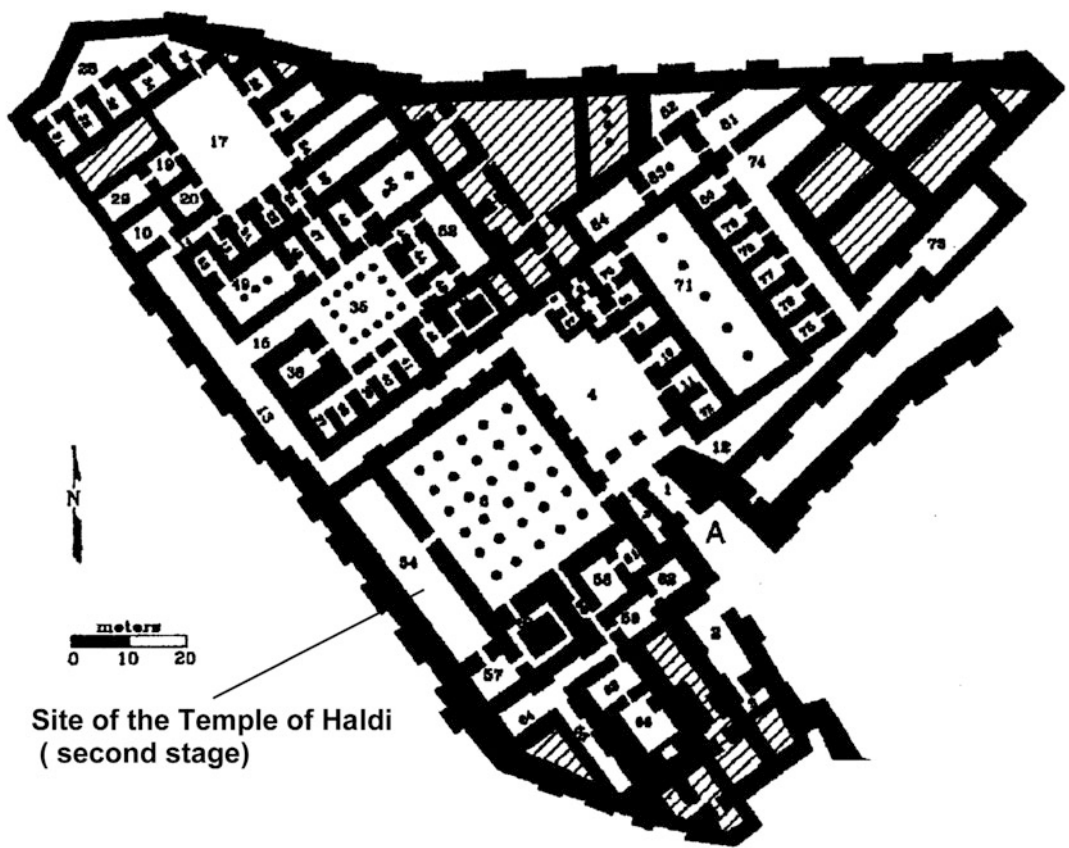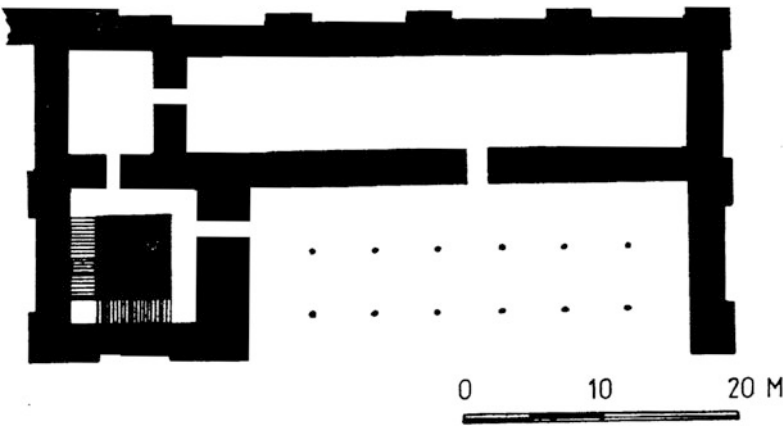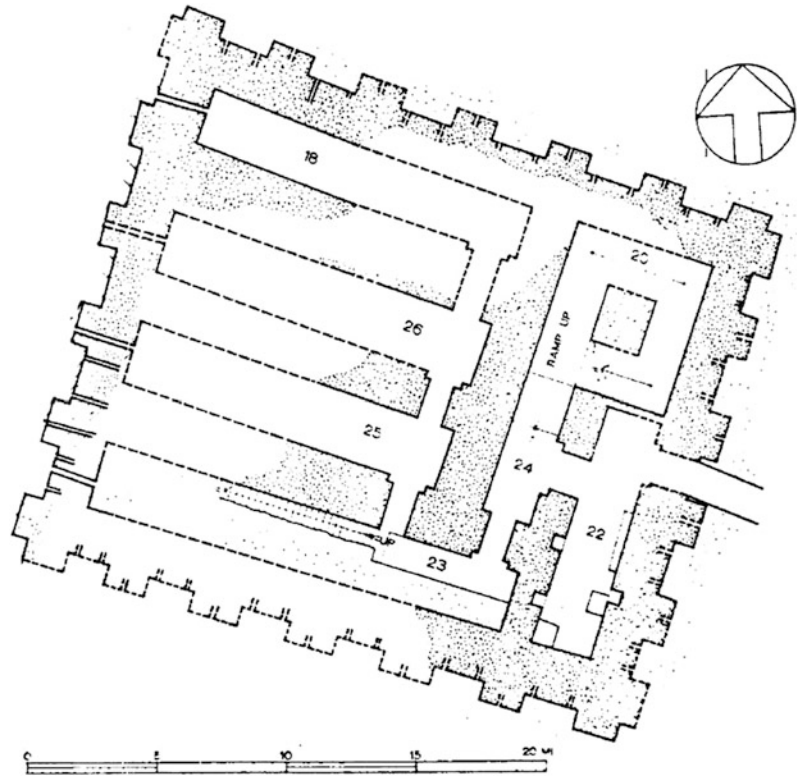

Fig. 14 The general plan of Arin Berd (Armenia), temple of Haldi located within the site

(Fig. 14). For that reason, they have chosen to set-up the entrance in the wall of the side that usually served as the back wall in the great columned halls of palaces in Pasargadae and in the Apadana of Persepolis. We have to note that the door has been placed near the corner and no

more as usual in the centre of a wall. We can observe the same location of the door entrance in the great columned hall of Nush-I Jan and probably in the one in Altintepe dating back of a little later date (the second half of the 7th c. B.C.). However, the situation regarding the entrance of the great hall in Altintepe is not clear because the results of the new campaigns of excavation seem to cast doubt on the opinion (on the drawings of the plan) of T. Özgüç the former excavator.[17]

Maybe this tradition to set the entrance in the back wall of a columned portico flanked by two rooms (guardroom, stairwell) goes back this period of local developments in the emerging architecture of the Zagros. At least, it seems it was well defined and developed when this layout was chosen for the great constructions we can observe in Hasanlu (Fig. 2). Here a group of large buildings of very similar layout have been

built during the eighth century B.C. (level IV). The largest among them, the so called the *Burned Building* II displays a main central hall (24 m long on 19 m wide) with two rows of six columns each and 2 rows of 5 columns each placed along the two long walls (Fig. 12). As we have seen before the building is entered through an outer columned portico that gives access to an antechamber flanked by a room and a stairwell.

At this stage, we can observe the existence of a system of bent-axis that seems to be reserved to make an indirect access (or simply to preserve an access) to the great central hall with a change of orientation through the antechamber. The same layout exists in the *Fort* and the *Central Temple* of Nush-i Jan (Figs. 3 and 15). We also have to note the two entrances in the northern portico (main gates) of the hall of the Apadana are not **aligned with the main central axis of the** throne (Fig. 16). It seems interesting to note that this principle observed in many buildings, seems to have been repeated in all the stages during the

[17]Özgüç (1963: Fig. 2) (see: also Forbes 1983: Fig. 33 who seems to agree with the former plans).
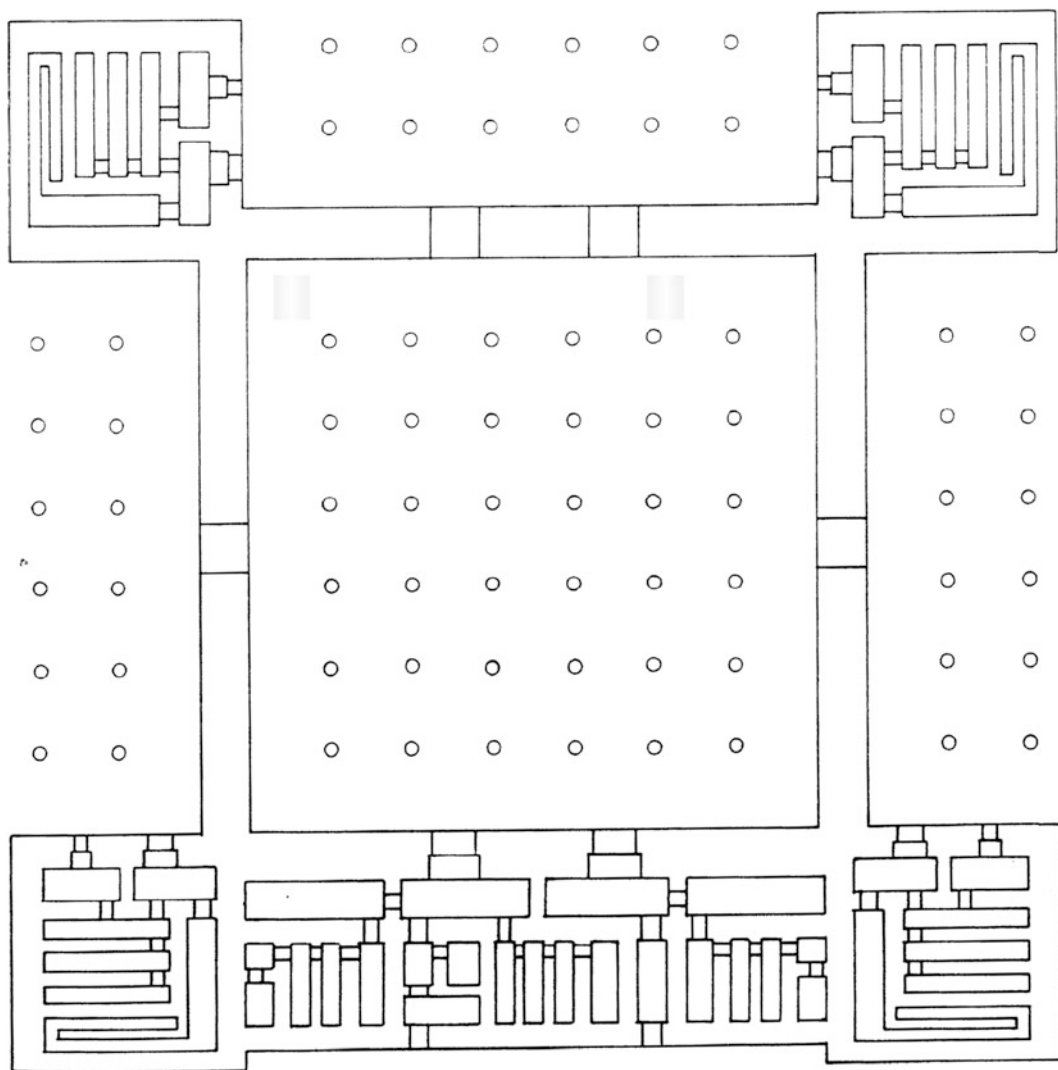
Fig. 16 Persepolis—Plan of the Apadana (Kleiss 1980: Fig. 5)

development of the Iranian Architecture until it exists in the entrance layout of many great mosques in Iran.

At the end of the seventh century B.C., a very large columned hall was built in the fortified palace of Godin Tepe (Fig. 4). This hall (28 m long × 24 m wide) displays five rows of six columns each and according to this layout this monument represents a daring architectural novelty. On the architectural point of view its arrangement is very close to the central hall of the Apadana and could have represented a forerunner pattern or model for the sub sequent constructions of Pasargadae and Persepolis. We have to remind that the end of Godin level II occurred after the middle of the seventh century B.C. and the construction of the first phase of the Apadana is believed to have started at the very end of the sixth century.

Beyond the similarities displayed by the new architectural concepts, forms and structures, we have to point out the similarity of functions between the monument and its Achaemenian counterparts. The former main axis formed by a

larger aisle or a central row of columns like in Nush-e Jan disappeared completely. Even if the hall in Godin Tepe is structurally linked to some other architectural features like for example walls and towers, it seems it has been built to be used as an independent unit. Unfortunately, we have only scarce information about the access even it is probable that the hall was entered through a portico or vestibule flanked by two little guard-rooms like in Hasanlu of in the *Fort* at Nush-I Jan.

The form of the entrance system seems for us extremely significant in our attempt to explain the origin of the plan we have observed in the Achaemenid palace buildings of Pasargadae and Dasht-e Gowhar (Fig. 17). We have some reasons to believe that the groups of rooms formed by the columned portico flanked by the two little guardrooms were introduced from the Zagros architecture. If it's not as a pure reproduction at least it could illustrate the transmission of such an architectural principle. It's possible to note that the improvements in the organisation of the entrance is directly linked to the evolution of the columned hall in direct line from the construction of Dasht-I Gowhar, to the ones of Palace P and palace S in Pasargadae.[18]

One of the most outstanding technical improvements is the capacity to extend the inner space by set up columns more and more distant from each other. The construction of the four columned porticoes buildings like the Palace S contributed to make the main hall a protected space where it was possible to transfer inside all the main activities, meetings and ceremonies,

that were before performed outside.[19] As we have already supposed for the construction of the Palace P, the raising of the roof for the central hall allowed bringing enough air and light. If we compare the plans of the palace S and the Apadana we could observe that the long north-eastern portico of the former has been replaced by the little rooms at the rear of the back wall of the later (Fig. 18).

It's not unreasonable to think that the Apadana represents a topmost technical improvement in the regularity of the structural organisation of the layout by comparison with the Palace S. However, we have to note that its layout seems to have been known for about hundred fifty years before the beginning of its construction. We can observe in the first occupation level (level II) of the *Manor* in Baba Jan four corner rooms projecting each from the angles of the construction. At that time, projecting "towers" were attached in the middle of the wall joining these rooms and one of them was pierced to set an access to the building. Theses structures disappeared in the second stage of the building during which, they were replaced by long rooms along the flanking sides and an open (columned or not?) vestibule took the place of the former access. No room was added on what appears to be the rear side of the building. A stairwell and a little room took the places of the former corner rooms flanking the former tower-vestibule. This layout reminds us the pattern principle we have seen above. The example seems to prove that the ones observed in Pasargadae may have been adopted as a model or directly inspired from areas outside the Achaemenian homeland. However, we have no information about the existence at Pasargadae of a stair in the rooms flanking the porticos.

In conclusion, we must not forget that the preserved structures on the ground and forming the layout of a building are the sole available marks to reconstruct the disappeared upper

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[18]For the chronological sequence of the Achaemenid Palace Architecture before the construction of the Apadana see Tourovets (2014 (1): 153–156). Looking at the layout, we can easily observe that the building is a project realized as a unit. Contrary to the Palace P, the doors are set in the middle of the walls of the hall. Porticos are regularly placed around the central hall. This gives the impression of a structural compactness and balance between the different architectural spaces. This building seems to represent the last development of the palace architecture before the era of the great imperial Achaemenid architecture.

[19]The existence of a throne in the long south-eastern portico of the Palace P seems to allow us this suggestion (Tourovets 2014a, b(2): 293–294).
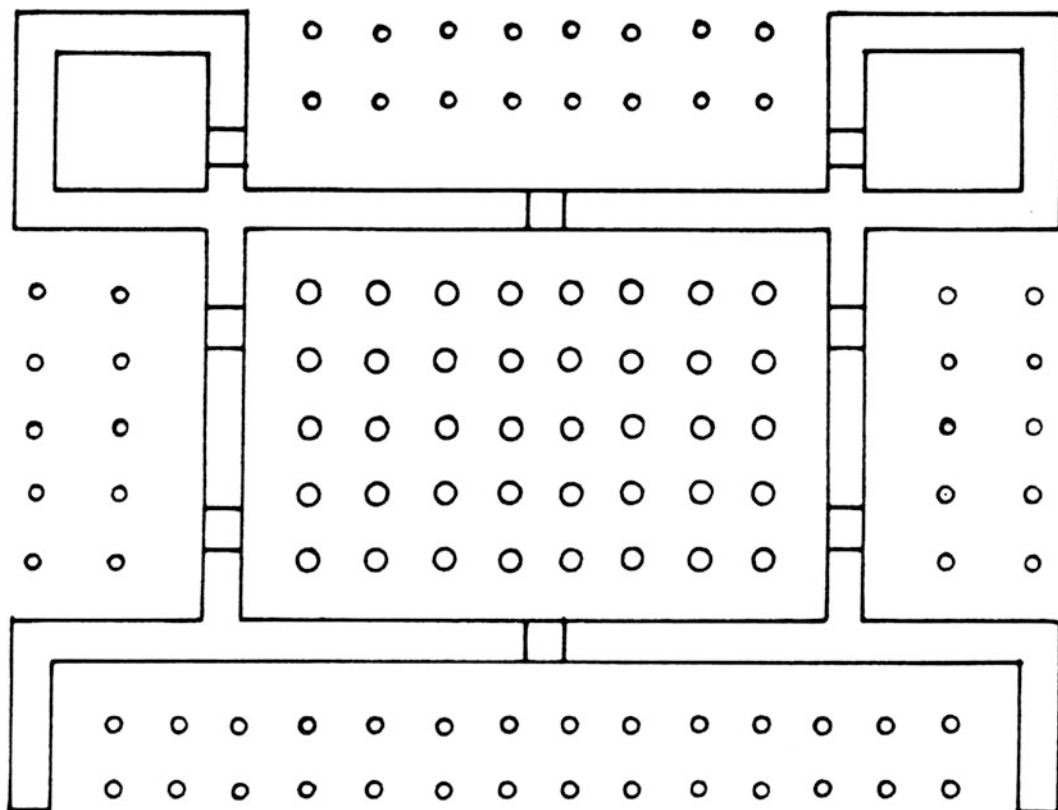
Fig. 17 Sketch plan of the palace of Dasht-e Gowhar (redrawn by Kleiss in: Kleiss 1980: Fig. 1)

structures of the architectural volumes. Indeed, we can observe in the evolution line of buildings a recurrent architectural concept of space-organization formed by a central columned hall bordered by columned portico and for some of them, flanked by little rooms. If we have pointed out architectural similarities between some constructions and structures, by no means we can speak about formal architectural copies.

The particularly well-developed layout was probably adopted during the Achaemenid Period. Those who have built The palaces of Pasargadae and the Apadana have preferred obviously to open their constructions towards the exterior. To the contrary of some theories stating that models may travel during the time from one area to another, we must underline here the importance

of the local architectural adaptations, either the Iranians of the Zagros or by the Achaemenian builders. Indeed, the analysis of the architectural organization of spaces shows how thanks to their prowess the builders have all adapted and then transformed for their own use different parts of significant structures belonging to former constructions.

The monuments of Persepolis and especially the Apadana could be seen as a technical improvement of the architecture of Pasargadae. The construction of these monuments might testify the highly degree of skilfulness and knowledge of the builders who created a new programme of constructions according to the development of their own but long term technical experiences in architecture.
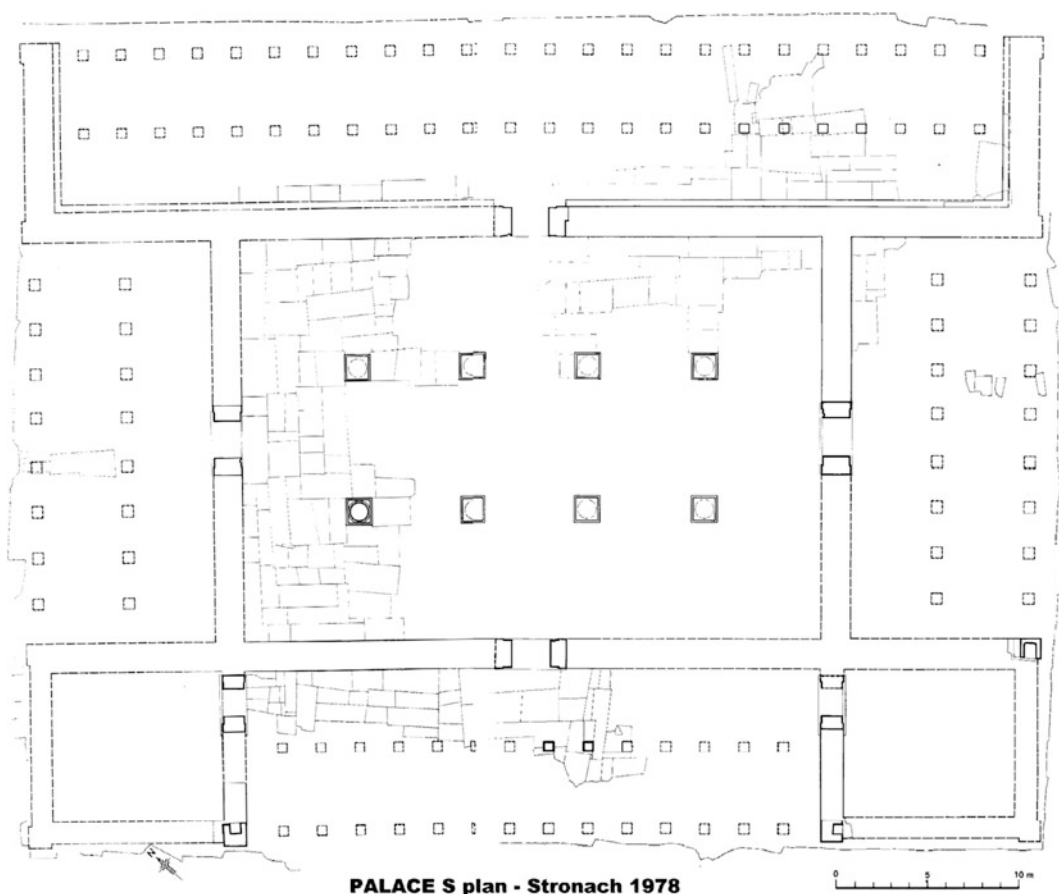
PALACE S plan - Stronach 1978

Fig. 18 Pasargadae. Sketch plan of the Palace S. (drawing from Herzfeld in Stronach 1978: Fig. 27b)

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The Achaemenid Parasol: Symbol of Authority and Feature of Court Protocol

Judith A. Lerner

Abstract

From as early as the mid-third millennium B.C.E in the ancient Near East, the parasol was associated with royal images as a symbol of royal authority. Among the reliefs at sixth- and fifth-century B.C.E Persepolis, carved on some of the doorjambs, is the Achaemenid king shown beneath a parasol as if moving from one building to another. The parasol depicted in these reliefs is compared with the remains of one actually excavated at Persepolis.

1 Introduction

A number of years ago I became interested in the iconography of the parasol, specifically its occurrence in Achaemenid art. I mentioned this interest to Shapur Shahbazi who was knowledgeable about all things Achaemenid and he immediately recalled the remains of a parasol that had been excavated at Persepolis and appeared in a Persian publication in 1976 (Tajvidi 1976).[1] He subsequently sent me a photocopy of the relevant pages, and, eventually, I was able to obtain the volume in New York.[2]

The earliest appearance of the parasol in the Ancient Near East is on a fragmentary stele of the Akkadian period that had been brought to Susa as booty in the twelfth century B.C.E

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[1]I had expressed my interest in parasols/umbrellas to Oscar White Muscarella and we tossed around the idea of a symposium on their use and iconography in different cultures: Egypt, the Near East, Greece, Rome, India, China and Japan. Unfortunately, nothing came of this, but Muscarella wrote about the parasol in ancient Near Eastern art and invited others to write about the parasol in Egyptian and Etruscan art in a volume of *Source. Notes in the History of Art* (Muscarella 1999).

[2]I am grateful to Ursula Sims-Williams at The British Library for scanning Tajvidi's illustration from the Library's copy before I could see the actual volume in New York. It must be noted that this initial work was accomplished with only photocopies and faxes.

(Amiet 1980: Fig. 361).[3] On it, Sargon of Akkad
(ca. 2300 B.C.E) leads his army; behind him an
attendant holds a parasol upright but not directly
above the king's head; like the modern parasol or
umbrella, the profile of the canopy or shade
resembles the inverted hemisphere of a modern
parasol or umbrella. A Middle Assyrian seal of
the second millennium B.C.E depicts an
enthroned king beneath a flat-shade parasol
(Matthews 1990: no. 514); the attendant standing
behind him grasps the handle of the parasol in
one hand while with the other seems to steady a
thin arched structure that seems in some way also
to support the parasol. This type of parasol is
thus unlike Sargon's and later parasols to be cited
and is a more stable shade provider, reminiscent
of the modern garden or beach shade whose shaft
or support is secured to the ground and is at least
two and a half meters in height. In the following
millennium, Assyrian kings appear beneath a
parasol on parade, in battle, and performing
sacrifices and palace duties. These parasols are
held in one hand by an attendant or are attached
to the royal chariot. They display diagonal
stretchers that connect the ribs to the shaft or
handle by means of a knob-like form which
functioned as runner or slide; a small pin or stick
inserted horizontally just below the knob to hold
it in place suggests that these parasols were
collapsible.[4] For the various parts of a parasol,
see Fig. 1.

Continuing the Near Eastern (and perhaps
also the Egyptian) royal prerogative of appearing
beneath the parasol, Achaemenid kings show
themselves in the doorways of some of the
buildings at Persepolis, usually walking out of
the main hall and into the portico, accompanied
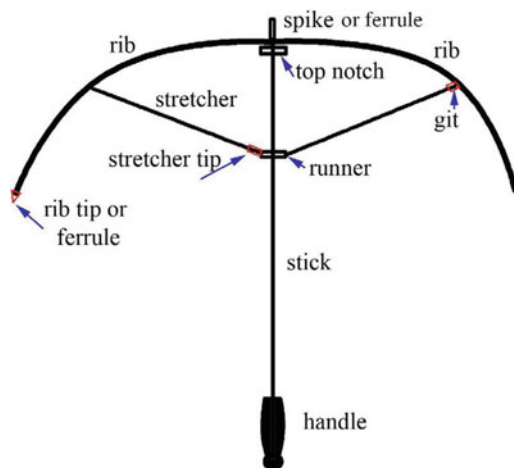by two attendants, one of whom holds the parasol

Fig. 1 The parts of a parasol or umbrella. Drawing adapted from Farrell (1985: 91, Fig. 76)

above the royal person (Fig. 2).[5] The upwardly
curved stretchers are clearly visible below the
shade; like the Assyrian examples, they are
joined together at the shaft by a knob or runner
that slides along the shaft to allow the stretchers

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[3]An overview of the parasol in the art of Iran from the first millennium B.C.E to the seventeenth century CE is provided by Sims (1990: 78–79).

[4]Meech (1993: 37). Muscarella (1999: 3–4) provides some detail about the Assyrian examples and cites Urartian and North Syrian ones. On first-millennium B.C.E Assyrian seals, the parasols have long shafts that rest on the ground (Herbordt 1992: pl. 20: 2 and 3).

[5]Schmidt 1953, pls. 75 and 76 (southern doorway, Central Building); 138 and 139 (southern doorways, Palace of Darius); 178–81 (eastern and western doorways, Palace of Xerxes); 194 (northern doorway, "Harem"). Only in the Palace of Xerxes does the king under the parasol enter the main hall from the small porticos that flank it on those sides; the jambs of the southern doorway are not preserved, but the king probably entered the hall directly from the narrow walkway that runs along the south and leads to the very functional stairways (not decorated with reliefs) that lead down to the level of the "Harem".

A drawing by Ernst Herzfeld of a doorjamb relief in Palace P at Pasargadae suggests that a figure behind the king carried a parasol. If so, then this royal prerogative was immediately adopted by the Achaemenid kings for the kingly personage is most likely Cyrus (for discussion of the problems associated with Herzfeld's drawing, as well as the controversy surrounding the attribution of Palace P, see Root 1979: 51 and 285; also Briant 2002 [1996]: 89). To my knowledge, images of the Achaemenid king under a parasol seem to exist in no other medium. The cylinder seal impression cited by Briant (218) as depicting the king followed by parasol attendant (along with a trident in the field and rear parts of a lion) is not Achaemenid but possibly Syrian; Tajvidi mentions a parasol-like object in a ceremonial scene on a seal impression published by Eric Schmidt in *Persepolis* II, but I cannot find it among any of the seal impressions published in that volume.

Fig. 2 Relief of Darius I (522–486 B.C.E), southern doorway, Central Building, Persepolis. Author's photograph
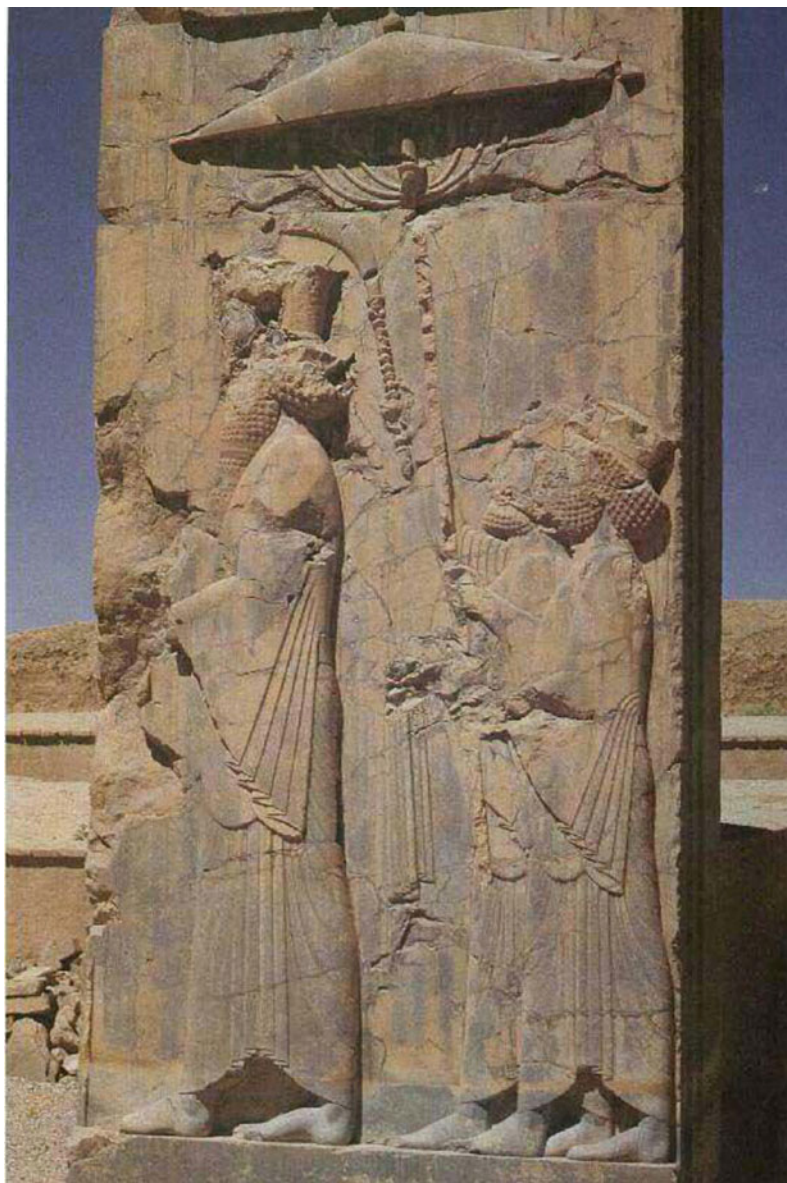
to be raised and lowered. A collapsible parasol would seem more desirable as it makes it easier to carry and to store when it was not used to shade the monarch.[6]

Mentioned at the start of this paper, what its excavator, Akbar Tajvidi, identifies as the remains of a parasol provide a tangible example of this royal accoutrement (1976: 208–209 and Figs. 170 and 171 = Fig. 3).[7] According to Tajvidi, it is "a three-pronged object with a handle 107 cm long that has an egg-shaped protrusion [at the top]." The "egg-shaped" element corresponds to the ferrule or top notch that holds and secures the ribs to the parasol shaft, a consistent element of the Persepolitan parasols. The "handle" or shaft is bronze as are "two of the prongs that come from beneath the protrusion," but the third "prong," which was "discovered separate from the main body but next to it is made of iron. At the end of the prongs a notch has been made for passing a wire or a cord." The length of the handle is appropriate for the shaft of a hand-held parasol; the ovoid protrusion would be the parasol finial, while the "prongs" would correspond to the stretchers that raise the parasol shade or covering (also called the "canopy"). The notch at the end of the stretchers, visible in the photograph, would have secured the stretchers to the ribs of the shade. The iron stretcher might represent a repair to the object. That this object was a parasol does appear likely; that it was collapsible, however, is questionable as the stretchers appear to be attached to the shaft, rather than to a sliding runner.

Regardless of its ability to furl, these remains prompt speculation about other details of the Achaemenid parasol as it appears in the reliefs. No doubt, as was the excavated specimen, it was made of metal; and it was most likely gilded: among the gifts that Artaxerxes II is said to have given his Cretan ally Entimus was a gilt parasol or sun-shade (Shahbazi 1975: 86).[8] Traces of gilding are not mentioned for the excavated remains, but it is not unlikely that it too was gilded. The shade or covering material that stretched over the ribs was undoubtedly a rich fabric. In some of the reliefs that portray the king beneath a parasol the king's garment is engraved with elaborate designs—a field of 12-petalled rosettes or encircled palmettes bordered by a row of walking lions that represent the rich embroidery and appliqués of the actual fabric (Schmidt 1953: pls. 142–143 [Palace of Darius]; 198 ["Harem"]). Although such engraving cannot be discerned on any of the parasols in the reliefs, it is possible that they too were similarly decorated. The baldachin of the enthronement scenes in the Audience Hall and Central Building is embellished with rows of bulls and lions marching towards a central winged sun disk, each row set above a line of multi-petaled rosettes (Schmidt

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[6]Two well-known parasol elements have been excavated in Anatolia at Gordion and at Samos, both constructed of wood: from Gordion a "cap piece" or top notch with eight socket cuttings, presumably for the attachment of the long wooden pegs that were found with the cap and would have functioned as ribs; from Samos a sliding knob section with eight rectangular cuttings that apparently served as the runner that allowed the stretchers to be raised, thereby unfurling the parasol (see: Muscarella 1999: 4; Miller 1992, 1997: 194). Both parasols are earlier than the Achaemenid one, dating to the eighth and seventh centuries B.C.E, respectively.

For a view of the underside of an opened parasol, see the one held over the seated Persian satrap on one of the late fifth-century B.C.E "Nereid" grave reliefs from Xanthos, Lycia (Shahbazi 1975: pls. LIV and LVIII). In addition to this Xanthos relief, Muscarella cites the "Persian" parasol's appearance in the funerary art from other Lycian sites (1999: 6 and ns. 19 and 20). That "in the Achaemenid world the parasol was not restricted to the Great King," had been shown further by Miller (1992: p. 94), who, in addition to the Achaemenid-period reliefs subsequently mentioned by Muscarella (1999: pp. 822–823), notes an earlier depiction of a man and a parasol-bearer in a painting of travel by boat from the Late Archaic (late sixth century) Lycian tomb at Kızılbel (Miller 1992: p. 94).

[7]Muscarella mentions the Persepolis parasol (1999: 6 and n. 18) and cites me as one source for his awareness of it. He also cites Roman Ghirshman's note of the find (1976: 12, n. 3). I had learned from Shapur Shahbazi only about its publication but had not yet received the full reference for it. Muscarella and I spoke no further about the symposium and I tucked away the photocopied pages of Tajvidi's book that Shapur sent into my "Parasol" file in the hope that one day we would revive the symposium idea; I did not know about Muscarella's Source article until I began to write this paper.

[8]Also cited by Briant (2002 [1996]: 297 and 312), Miller (1997: 128).

1953: pls. 79 [Central Building] where the king is enthroned with the crown prince behind him and no attendant); 99 and 105 [Throne Hall]). Similar decoration might have covered the parasol shade: rows of walking animals and rosettes in concentric circles if the shade was circular in shape or stacked rows of increasingly shorter length if the shade was square or polygonal, it is difficult to tell the exact shape of the shade from the reliefs or from the Persepolis parasol itself, although the parasol represented in the reliefs has a horizontal lower edge.

Unlike the parasol, the Achaemenid baldachin has the additional feature of a tasseled woven band at its lower edge[9]; that, and its being a stationary construction supported by upright poles, renders it a more elaborate marker for the awe-inspiring figure of the king seated in state. The parasol may be considered a portable baldachin, a symbol of authority that moves with the king, distinguishing him from all around him and delineating the space in which he moves, separating it from that inhabited by his subjects. Certainly, the parasol served to shield the royal body from the sun's rays,[10] but its use, although practical, was also symbolic of the royal presence. Once inside the hall, the king takes his throne beneath the baldachin; both attendants presumably step aside, as another attendant (perhaps of higher rank) takes his place behind the throne holding a fly-whisk above the monarch's head and clutching a folded cloth, different from the towel the parasol-bearer's companion holds.[11] The parasol bearer presumably furls his parasol, and the two attendants await the king's passage into the mundane exterior space. There, the parasol, now unfurled and held high, will again differentiate the now mobile royal personage from all that surrounds him.

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[9]The Assyrian parasols of the first millennium are fringed as might be the flat-shade parasol on the Middle Assyrian seal already cited: below its edge runs a thin horizontal hatched band that is slightly shorter than the edge and could represent a fringe. This flat-shade parasol may be a forerunner of the baldachin or an actual baldachin, but a portable one that was used when the king was enthroned outside (the scene takes place between date-palms and a water pattern forms the lower border). The flat shade resembles a baldachin's canopy and the arched structure to which it seems attached its support. On the ninth-century bronze gates of the Assyrian Shalmaneser III, as observed by Muscarella (1999: 3 and 7, n. 8), along with the typical parasol is "a form rendered as a shade curving out as an extension of the shaft." This is held over the standing king as he receives tribute and over him enthroned receiving the submission of a tribal chief; the shaft rests on the ground and both scenes takes place outdoors. A true baldachin, with fringed edging and supported by sturdy uprights, appears on Shalmaneser III's throne base which depicts him shaking hands with the king of Babylon (Amiet 1980: Figs. 122 and 591).

[10]Briant (2002 [1996]: 221), observes that the parasol, along with the fly whisk and towel borne by the second attendant, functions to relieve the king of the physical discomfort from the excessive heat of the sun: the fly whisk to ward off insects, the towel to mop the royal brow. But he identifies the flywhisk held over the king when he is under the baldachin as a sunshade, which is surely not necessary when the king is indoors. Thus Root (1979: 287–288) views the parasol as "an iconographical device intended specifically to indicate that the king is being shown appearing in state while in the act of leaving a given palace".

[11]There is a distinction to be made among the towels that different personages hold in the presence of the king: the *long pleated towel with a diagonal edge* that hangs from the open and extended hand of the attendant who also carries the fly-whisk when the monarch leaves a building (Palace of Darius, Central Building; the "Harem," Palace of Xerxes), the *plain (unpleated) towel* that is draped between the thumb and fingers of the extended hand of the attendant with cosmetic bottle who appears without the monarch (Palace of Darius), and the *pleated and looped towel* that is grasped in the clutched hand of the court official who stands behind the enthroned king (Treasury reliefs that were originally the central panels of the Apadana; north doorways, Throne Hall) as well as by the attendant (or official?) who also holds a fly-whisk in enthronement scenes (south doorways, Throne Hall).In his essay on the function of the Persepolitan buildings, Shahrokh Razmjou argues for their use in religious ceremonies, and for the beardless figures that carry "towels"—in particular, the one standing behind the king on the Treasury reliefs—as Magi or priests (Razmjou 2010: 238–241). Indeed, reconstruction of court protocol derived from careful study of the Persepolis reliefs is an area that needs further exploration.

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Glimpse of Highways Network of Achaemenid Empire: Construction, Maintenance and Service

Leila Makvandi

Abstract

The Royal Road network of the Achaemenid connected the provincial centers from Egypt in the west to India in the east, with the Heartlands of the Achaemenid Empire. The classical source explains that Royal road were sufficiently ample and robust to support the movement of carriage and accommodate. So the fact is a work of such long and width road required a major effort by the Achaemenid State. Everything thus points to the existence of an official organization designed to expand, modify, repair and give a service in this complex roads network.

1 Introduction

Darius I (521-486 B.C.) in Behiston inscription proudly proclaimed the vastness of his realm, the first world empire. To control and establish facility transmission between these such vastness territory, Darius creates the famous Royal road highway which connects west of empire to east, as Herodotus indicates parties could travels 2699 km from Sardis to Susa through this highway (Herodotus: 5.52–54.), follow it through Persepolis than to east (India, Bacteria, Arachosia). Assuredly this road constructed to facilate movement and operations of the royal armies and circulation of resources in the form of taxes and transactions they linked an extensive network of roads in Emperor territory.

Although regional power was transferred to the provincial governors, but Achaemenid king were surveillance the Satraps from their heartland in Fārs. one of the great source of power for Achaemenid Kings was their well connected and secured road system, which expedites and facilitated the transportation of the royal orders, as well as the movement of officials. But work and control of such long Highway required a major effort by the state; construction of road network, maintenance and security of it and give a service to travellers was part of this huge project of Darius I. Evidence makes a point of existence of an official organizations in the Achaemenid administration which was in charge of to expand, modify, repair and draw this complex roads network. The existence of these organizations and facilities is known from historical sources, travel rations (Q texts) in the Persepolis Fortification Archive but there is a lot of uncertainty about archaeological data. So as Briant indicate "in order to reconstruct the

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network of Achaemenid roads, we must broaden our perspective and extend our documentation" (Briant 2012: 186). In this paper I focus on Structure of the Achaemenid Highway by overview of three points: construction, maintenance of it and service was presented to passengers.

2 Construction

Most of what is known about Achaemenid Royal Road is not from archaeological field work, but from classic historians, who generally point out that the Achaemenid Empire had very well organized network of highways and roads, which facilitated communication and they had fastest postal system at that time. Herodotus describes the royal road and how it connects Susa to Sardis (Herodotus: 5.52–54). the Achaemenid Highway were introduced as "carriageways" in the historical texts, (Anabasis, I: 1.21; Arrian, III: 16.2) mainly because they were width and frequently transited by these vehicles of King (seasonal trip), armies and caravans. This utility would demonstrate the evident quality of these roads, since they would be well maintained and width to facilitate communications, although it should also be borne in mind that not all of the roads would have the same amenities. Graf suggests that in ancient Persian they used the word RaΘa- (rátha-) which term derived to refer to the "carriageways" (Graf 1994: 150) but it means chariot (Kent 1950: 176: Tavernier 2007: 562).[1]

Are there any remains of such roads? Are they were stone paved? French indicates actually part of the paved Roman roads in Asia Minor were constructed on Achaemenid Royal road (French 1980). In Gordion, Phrygia, a paved section of a road has been found by approximately 6.25 meters wide, with a hard surface of gravel, bordered by big stones, this road have been dated to end of the sixth century B.C, so known as part of the Achaemenid royal road (Starr 1963: 169–170).

Part of Achaemenids roads discovered in Achaemenid Heartland. Sumner, recognized part of road near Kūh-i Qale (Sumner 1986: 17) and Nicol in his Drodzan resque excavation Kūh-i Shahrak in Baiza plain (Nichol 1970: 278), both of them near Pasargade. Also archaeological projects in Tang Bolaghi on the Pulvār River[2] near Pasargade cause discovery of part of the Royal Roads (Atai and Boucharlat 2009: 23–32). But research team indicate that part of path can be water canal and maybe part of it is road, but they belong to Achaemenid periods (Tsuneki and Zeidi 2008: 212–215; Atai and Boucharlat 2009: 26). Though, excavations in a cave TB75, Tang Bulaghi have revealed a multitude of pottery, and trilobed iron arrow point, similar to objects found in the Persepolis Treasury, which excavator thinks probably Achaemenids used this cave as a warehouse for a garrison that controlled the royal road that passed through this region (Adachi and Zeidi 2009: 1–8).

How these roads constructed? Are they were stone paved? French indicated there is no evidence of construct paved roads before the Roman period in Asia Minor (French 1980: 704), but remains of pebbles road and gravel paved, by a width between 5 and 7 meters in Kūh-i Qale (Sumner 1986: 17) and Kūh-i Shahrak (Nichol 1970: 279), may be pointing out that such roads were paved the Great King frequently travel between their royal residences. There are other examples in Iran that allow a comparison. The same technique of stone cutting used in these sites was used in a passage found about 30 km northwest of Persepolis (Sumner 1982: 18). Although, this paved road can not be dated with certainty, but presence of several Achaemenid sites in the vicinity of the area, as well as numerous Achaemenid potteries found at three sites along this path, make it likely to be ascribed to this period (Sumner 1982: 18).

Despite these examples we must bear in mind that historical texts express that majority of Achaemenid Highway was not paved. Although,

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[1]For more discussion about royal road in classical sources see: Briant (1991, 2002: 357–87, 927–30), Graf (1994: 175–180, Kuhrt 2007: 2730–2762.

[2]For more references about archaeological reports see: Stronach (1978: 166–167), Kleiss (1991), Tsuneki and Zeidi (2008: Figs. 11.5–11.13).

construction process of the Royal road had received less attention in the historical sources. Anyway, it seems construction of roads was limited to elimination of rough and obstacles rocks and made a plain surface. This elimination of obstructive stones or covering natural pit on roads was really important because it could become problematic for pass by carriage or foot, and even could became much harder in the rains. Even since if take care and maintenance of roads was neglected because this roads needs consideration regularly. Especially which the vast majority of roads were unpaved, they needed regular maintenance so that their efficiency would not decrease.

3 Maintenance and Security

It is clear that maintenance and management of such vast roads required an important workforce, large administration and security system. Although, task of keeping roads in good condition was part of task of satraps and their subordinates, as can be seen in a passage from the Aristotle (II, 2.14b) which, one of the satrapal subordinates of Mausolo in Caria express:

"So, he sold parts of the trees that had advanced on the royal road or were fallen in that place". During military campaigns, the army was responsible for maintenance of roads. In Ciropedia, as Cyrus the great tell his foremen, which was specialized in construction of roads:

"You superintendents of the engineering corps have here from me a list of the spearmen, the archers, and the slingers, whose names have been stricken from the roster. You must require those of them who were spearmen to carry on the march a woodcutter's axe, those who were bowmen a mattock, and those who were slingers a shovel. With these tools they are to march in squads ahead of the wagons, so that, in case there is any need of road-building, you may get to work without delay, and so that, if I require their services, I may know where to find them when the time comes" (Xenphon. Cyropedia: 6.2.36).

Herodotus indicates that Xerexes in his campaighn to Asia Minor spend few days in Pieria

because part of his armies did deforesting the Macedonian mountain, which the whole army could pass the mountainous road. (Herodotus: 7.131)

Diodorus story show when the funerary chariot of Alexander goes from Babylon to the Mediterranean coast accompanied by numerous specialists who are in charge of preparing and improving the path that the chariots was to take (Diodorus: 18, 38.2).

Beside classical texts, one of primary source of Achaemenid studies is the Persepolis Fortification Archive. Archive was discovered by Ernest Herzfeld in 1933/34 at two chambers in northerneast of Persepolis Fortification (Herzfeld 1934: 231; Ibid.: 1941: 127, 226). Main body of archive comprises about 10,000 legible tablets inscribed in Elamite cuneiform, (as well it has almost 700 tablets written in Aramaic alphabetic script, and at least some 5000 tablets that have only impressions of cylinder and stamp seals), Most of the Elamite and Aramaic tablets are sealed as well.[3] Archive provides a unique window on the administrative system in Heartlands of the Achaemenid Empire and simultaneously brightens many aspects of society in general. The area under purview of the Persepolis administrators was Heartlands of Achaemenid Empire, it more than 1500 official's works on the institutions (Hallock 1985: 588–590; Henkelman 2008: 65–66).[4] As Henkelman indicates, thousands of documents make it easy to gain the impression of an enclosed world, of perfect, self contained machinery. Though direct evidence is hard to come by, this image is certainly a false one: the institutional sphere was sharply delineated neither in geographical, nor in economic or societal terms (Henkelman 2011: 4).

The archive texts are about collect, storage and redistribution of food commodities in southwestern of Iran. Hallock divided texts to

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[3]See: Hallock (1969: 4–7), Garrison and Root (2001: 7–9), Henkelman (2008: 86–88), Idem (2013: 530–531), Jones and Stolper (2008: 27–29).

[4]For further studies about administrative system in Persepolis fortification tablets look at: Dandamaev and Lukonin (2004: 90–237), Hallock (1985: 588–609), Kuhrt (2007: 763–814), Lewis (1984: 592–602).

various categories distinguished in his publications of 1969 and 1978, the so-called "travel rations," or category Q, includes texts related to travel service. The travelers came from different province of empire to central administration under purview of Persepolis archive (restricted area between Persepolis to Susa)[5] they received daily travel rations at stop stations on the roads they pass. Hallock explicitly describe the procedure "by their very existence, imply an elaborate system for the transfer of credits. The texts were inscribed at the supply station and sent to Persepolis. There, evidently, the commodities dispensed were credited to the account of the supplier and debited to the account of the official who had provided the travelers with a "sealed document" (halmi) or "authorization" (miyatukkam) (Hallock 1969: 6). Although, Fortification archive covered part of the royal road between Susa to Persepolis, which fell partly within the scope of the Persepolis administration, but somehow could provide us with a geographical frame of royal road based on coming traveler from western region like Sardis, Egypt or eastern part of empire as India and etc.

Travel texts in archive may be considered as miniaturized of what going on the roads, different travel parties referred by their ethnicity, their origin and destination and sometimes purpose of their trip. Texts show some clues which previously were narrated by Greek historians; wide of road which in PF1532 indicated 2454 worker together pass the road between Susa to Persepolis, Security it is one of the important aspects of Achaemenid highway, as tax collector, treasurer pass the road by 2 or 3 parties and there is no indication of security guard escort them, or in PF 1550, one women travel from Susa to Kandahar.[6]

As mentioned, part of roads or maybe road from the Achaemenid Heartland discovered in Fārs, showing that some section of it were paved.

But, it should also be taken into account, that most of the highway there was unpaved and less hospitable routes, also, we can consider to regional roads which used in special circumstances.

It must always be considered that the roads were influenced by the landscape of the region they were constructed. Since mountainous areas, plains and other geographical features, even climatic fluctuations such as rain, snow even hot weather was influence road engineering and it sustenance.[7]

Datimara is an job title used in almost 30 travel texts, Hallock translate it as "road counter" (Hallock 1969: 39, 681), Hinz and Koch suggested it as "police officer" (Hinz and Koch 1987: 257, 299, 302), Mayerhofer indicate it has old persian origin as dāimāra- or dāi(h)- māra- and translate it as "counting a roads" (Mayrhofer 1979: 183).[8] In Pfa22, Pfa23, NN 1219 and NN 2041 directly mentioned they counted the roads (KASKAL. Lg hašašta- da/KASKAL. Lg. hašip). This road counters in most of texts mentioned by another work group introduced as ŠI.KAK. lg kutira which translated as "lance bearer", "road inspector" (Hallock 1978: 114, 121–124; Henkelman 2002). širak is means spear, which in Pfa19 they used Akkadian loanword šukurum as means spear, it referring to the instrument or marker they could use for surveys, measured routs and placed distance marked (Henkelman, Forth: 32), as one of this stone distance marked found in Pasargade (Callieri 1995). A text from the Ebabbar archive (BM 79746) in Sippar belongs to 8 month of Cyrus the great is about measuring a stretch of the royal road (Jursa 2008).

Even we still pursuit what exactly road surveyor do but it was certainly an important job, maybe they were part of military. As Ambaduš the road counter with his 5 companions mentioned several time in Q texts, in Pfa30 indicated this group have to stay in Hadaran and received

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[5]For more studies about Geographical area and roads in Persepolis fortification tablets look at: Aperghis (1996), Idem (2008), Briant (1992), Koch (1990), Potts (2008), Tuplin (1998), Vogelsang (1985), Idem (1992).

[6]For more Studies about persepolis Fortification texts look at Hallock (1969), Idem (1977).

[7]PF1284, PF 1297, PF 1307, PF 1343, PF 1566, Fort 819, Fort 906, Fort 6749, Fort 7093, Pfa 15, Pfa 19, Pfa 20, Pfa 21, Pfa 30, Pfa 31, NN 481, NN 621, NN 844, NN 885, NN 937, NN 1023, NN 1219, NN 1647, NN 1803, NN 1814, NN 1863.

[8]Also see: Tavernier (2007: 419).

rations for 6 days until king arrived. Maybe these specialized officials formed an important unit within the armies, as can be seen presence of these engineers in the Persian military expeditions (Xenophon: VI 2.36), or in the expeditions of Alexander (Arrian, I: 26.1). Even the "road surveyor" and the "lance-bearer" seen as a military, either as directors of the workers in charge of creating and maintaining the roads, or as a kind of police or explorer (Tuplin 1987: 211) they are doing a job was correlated to the Royal road.

3.1 Security

The royal road was closely controlled by the king's guard, although it is impossible to determine if there was a rigorous control over the movements or not. However, the satraps, who were responsible for ensuring the safety of the roads, organizing the distribution of the travel stations at the strategic points of the roads crossed the territory they ruled, as well as those in charge of designating escorts to travelers, which can be seen in themistocles letter (see: Sect. 3).

In order to improve communications within their empire, the Achaemenid Kings not only cared to keep the roads clear of obstacles, where a number of individuals were in charge of maintaining them in good condition through periodic surveys, but also arranged a series of travel stops on road, to guarantee the safety of those individuals who were traveling on royal roads. For these reasons some groups of travelers and people of high status were escorted by "guides". The official travelers escorted and not undertaking a long journey without official support. It is well-known fact that the Achaemenid roads were well guarded. The system ensured that the movements of individuals were monitored and registered as such Q texts of Persepolis archive which served to maintain control and security.

The terms appearing in the Fortification texts referred to individuals who guarded roads are Da'ubattiš (PF 1250, PF 1487, PF 1902), while datibara (PF 1272) is another job title referred to security of roads.

Hallock based on Gershevitch suggested that Da'ubattiš is Elamite writing of tāyu- pāti or tāya- pātā an Old Persian word and it means "police officer", who is concerned with the watching of thieves (Gershevitch 1969: 169; Hallock 1969: 39, 681).[9] Datibara is loan word of Old Persian databara/databara, which translated as "law officer" (Hallock 1969: 39, 681; Ibid.: 1978: 112; Tavernier 2007: 419). Graf suggested individuals by Da'ubattiš title are police officer, which responsible for security of road and datibara is law officer responsible of attendance travelers on the roads (Graf 1994, 174). Even we are not sure what exactly they do but such a diversity of terminologies could be implying a specialization of duties and functions, although such official duties could also have varied depending on the circumstances.

4 Service

In one of the so-called Letters of Themistocles, the Athenian politician are narrate his journey to the Achaemenid center to see the great king, in part of his letter he give an interesting information about services in the Royal Road:

"Some people brought the information to Artabazos and took me to Phrygia. For Artabazos was in Phrygia. When he learned among other things that I had decided to go to the King, he approved and sent me immediately. He gave me two horses and an equal number of servants (oikètai) and sent me along with thirteen other Persians who were in charge of the road and the provisions (Briant 2007; Ibid.: 2012: 189).

As Themistocles indicates he received a travel support for travelling to Susa, in follow of the letter he explain about his pleasant trip.

When Herodotus describes about postal system of Achaemenid, give interesting information about service that this fast messengers received, which could be is almost the same for other official traveler's path the Achaemenid Highway.

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[9]For more information about etymology of see: Hinz and Koch (1987: 300), Mayerhofer (1971: 56), Tavernier (2007: 418).

The Fast messengers (pirradaziš) are same couriers as Herodotus tell they transfer royal orders in very short time (Herodotus: VIII.98), they come from Sardis (PF 1321, PF 1404), Kandahar (PF 1440, PF 1550), Arachosia (PF 1385, PF 1484), and India (PF 1556), in texts such PF1315, PF1319 destination of this fast messengers is the king or in PF 1321, messenger from the king in Susa go to Sardis. For Greek historians, the Achaemenid Highways and their post system was most impressive. Herodotus describes the pirradaziš:

There is nothing mortal which accomplishes a journey with more speed than these messengers, so skillfully has this been invented by the Persians. For they say that according to the number of days of which the entire journey consists, so many horses and men are set at intervals, each man and horse appointed for a day's journey. Neither snow nor rain nor heat nor darkness of night prevents them from accomplishing the task proposed to them with the very utmost speed (Herodotus, 8.98).

As indicated in historical texts existence of travel stations on the road for rest, having food, fresh horses are the best service for travelers after a long day being on road. Travel rations in the Persepolis Fortification archive are supporting these historical observations, and the Aramaic ostraca of Palestine and the Aramaic letters of Bactria reveal the availability of travel stations in these regions (Briant 2009: 148–155).

The term barrišdama appears only in travel texts in the Persepolis Fortification archive. Hallock based on Gershevitch suggest this word is a derivation from the term barištama—has an Old Persian (barista—in Avesta), and literally meaning is "the best custody" And translate it as "elite guide" (Hallock 1969: 42, 675). The other scholars accept the meaning (Hinz and Koch 1987: 155–156; Tavernier 2007: 265, 404, 428). Barrišdama mentioned in 30 texts as hiša barrišdama, Hallock indicated the Individuals with this title linked to groups of foreign travelers came to area under control of Persepolis administration (Hallock 1969: 42), Special guidance and protection would be required, as he mentions in the case of the Indians (five times, for example

PF 1572), Cappadocians (PF 1577), Lydians (PF 1409), Thracians (PF 1363) and Egyptians (PF 1557). In PF 1550 Zišanduš, an "elite guide", is leading a single woman on the long journey between Susa and Gandhara, in the same way that this character (PF 1440) is shown, but without his title, in a group of five "boys".

The interesting case is Išbaramištima, he is an elite guide from 19 to 28 year, his name always mentioned by Indian passengers are coming or going to India. Išbaramištima used his own seal to receive the rations for travelers (PFS 49),[10] in some texts his name is not mentioned but the Indian passengers used his seal to get the ration (PF 1318, NN 3000). This case is made us to think this elite guide was professionally trained, they know the foreign language and accompany the travelers on the road.

Also the word karabatiš suggested by Gershevitch as "caravan leader", he compares this term with the Armenian word karapet, "precursor, escort, and guide"(Gershtvich 1951–52: 144; Hallock 1969: 40, 710). Tavernier proposed is loan word of Old Persian karapatiš and he is a person who guide caravans (Tavernier 2007: 426). However, in Fortification texts these individuals are always accompanies by their servants not Caravan and recorded separately from the rest of the caravan. Therefore, Hallock suggested maybe he is going one day earlier of rest of caravan to prepare everything (Hallock 1969: 42).

To important service along the highways were stations or travel stations where the royal fast messengers, officials travelers by showing their halmi could eat, rest and even change their horse to continue their path. Existence of these facilities is also known from Herodotus, who pointed out that along the Royal Road there is a number of stations to provide shelter and supply facilities to messengers (Herodotus, 5. 52–54). It is no information about if these stations had a specific name like Caravansara in Islamic period.

These stations should likely to be located at an interval of a day's March, and distance that

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[10]PF 1316, PF 1317, PF 1318, PF 1556, PF 1558, NN 455, NN 3000, NN 3002.

would be measured under the conditions of geographical terrain. It is clear that the distance between stations was not uniform, although the numbers of stations along the routes were calculated. On average, the stations were emplaced every 20–25 km, and any variation in this distance can be attributed based on topographic features of region, for example, water availability.

4.1 Halmi

For get facilities were arranged on the Royal Road travelers had to obtain official permission, called halmi in the Persepolis Fortification texts, a term generally has been translated by Hallock as "sealed document", miyatukkaš is another term used to refer to these documents, it seems Both terms were used more or less interchangeably (Hallock 1969). It is more likely to translate halmi as "order" or "authorization", since miyatukkaš, replacing the halmi in PF Texts, has an Iranian origin, and literally translated as "authorization").

Unfortunately any of these halmi is not preserved in Persepolis archives, maybe because they would have been written in Aramaic on parchment. There is an Aramaic letter of Aršāma (DAE 67), the satrap of Egypt, in Darius II region that exactly can be compared as halmi. This letter was entrusted to his Nehtihôr:

From Aršāma to Marduk the official (pqd') who is in [G°]; Nabudalani [the] officia[l] who is in Lair; Zatuvahya the official [who is in] Arzuhin; Upastabara the official who is in Arbel, Hl- and Matalubash; Bagapharna the official w [ho] is in Salam;

Phradapharna and Hw […] t the [off] ic[ials] who are in Damascus.

And n[o]w, [behol] d (one) named Nakhthor, m[y] official (pqd'), [is] g[oing] to Egypt. You, give rations (ptp) charged to my house (or, better, "estates": 739; cf. n. 24 below) (byt zyly) which is in your province(s), day by day:

"White" flour—t[w]o handfuls, "Inferior" flour—three (E R A S U R E: three) handfuls, Wine or beer—two handfuls, [ ] one. And to his servants, ten per[s]ons, to each per day: Flour— one handful, Fodder—according to (the number of) his horses. Give rations to two Cilician persons (and) one artisan, all (told) three, my servants who are with him to Egypt, to each person per day: flour—one handful.

Give them this ration, each official in turn, according to the route which is from province to province (medinah) until he reaches Egypt. And if he be in one place more than one day, then for those days do not give them extra rations.

Bagasrava knows this order. Rashta is the scribe (Briant 2012: 194; Kuhrt 2007: 739; Whitehead 1974: 65–66).

The interest point of this letter is that let us to know how exactly the administrative process was. So, travereler were to be provided by a sealed document, (miyatukkašorhalmi), which granted by the King or royal members, Satrap or superior officer; tablets of Persepolis Fortification archive give us the names of some of these royal members like: Irtaštuna the Darius wife, the royal woman Irdabama; Satraps; Karkiš from Kurman/Kermania, the most frequent is Bakabana of Susa, and high ranking officials like Parnaka the head of Persepolis administration and his deputy Ziššawiš. In the sealed document, number of travelers, the amount of ration and portion of each one, the origin and destination of trip were recorded as could be seen in Aršāma letter. In Aramaic papyri from Bacteria (Fig. 1) there is one text we can expect to be a halmi (Naveh and Shaked 2012: 187, 188). They show the halmi to supplier official in stations, suppliers prepare the ration and traveler they received it. Supplier official for this interaction wrote a tablet which sealed by his seal and head of the traveler seals, and sent to corresponding administrative center in Persepolis (Henkelman 2008: 151–153).

Thus, it is sufficiently demonstrated that official authorization was required to obtain supplies at staging points established along the routes, and that these issues were carefully recorded. The document was addressed to officials in charge of the station within the sub-province by name and what provisions where, how much and for how long would be issued to travelers carrying the sealed letter were specified.

Fig. 1 papyri of Bacteria with seal image (Naveh and Shaked 2012: 187, 189)

5 Summery

Although, the Achaemenid road system by archaeological evidence is little known, certain path of this highway is not specified, hence there are numerous interpretations of it route. Mostly, the various different scenarios presented by scholars based on historical texts and the Persepolis Fortification archive texts about Royal road but still its correlation with archaeological evidence remains controversial. Everything points to the existence of an official organization destined to expand, modify, repair and trace this complex network of roads. Unfortunately, as far as the roads are concerned, still a lot of uncertainty about it. We hope that future archaeological excavations and historical can shed more light on this dark and controversial issue.

As mentioned, sections of what are thought to be roads from the Achaemenid period have been found in the Fārs, showing that some of them were paved, while others were chopped into the mountain slopes to allow passage and, probably leveled, so that they were useful for the road traffic. In any case, it should also be taken into account, that in addition to the well-provided royal roads, there were also other less hospitable routes, which would have been used in special circumstances.

In this way, installing and maintaining the stations, as well as the roads, required a very important effort on the part of the Achaemenian State, and that could only be justified by the very dense circulation that must have existed. Thus, to improve communications, Achaemenid monarchs took care to keep the roads clear of obstacles: as we have just seen a number of individuals were in charge of keeping them in good condition through periodic surveys. Everything points to the existence of an official organization destined to expand, modify, repair and trace this complex network of roads. Unfortunately, as far as the roads are concerned, no more data are available than those shown here. We hope that future archaeological excavations can shed more light on this dark and controversial issue.

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A New Ionic Type Capital from the Shiyan Plain: Tracing an Important Monument of the Seleucid/Parthian Periods Near the Khorasan High Road, Kermanshah, Western Iran

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Abstract

Despite the centuries long dominance of the Seleucids and Parthians over western Iran, and their consequent city foundations and constructions, very few traces of the Ionic architectural style have been discovered to date in the central Zagros. The available archeological finds are limited to scattered architectural remains of Ionic order in sites such as Susa and Masjed Suleiman in southwestern Iran or Nahavand and Bisotun in western Iran. The discovery of an Ionic type capital in the Islamabad-e Gharb region, near the Great Khorasan Route, supplies new information about the existence of monuments with Ionic type elements in this region. The capital, featuring a palmette between the two volutes, is more or less similar to other capitals discovered at Khorhe, Nahavand, and Qizqapan and can be attributed to the Seleucid/Parthian periods.

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1 Introduction

Despite the long-term interactions and mutual artistic influences between the Iranian and Greek cultures, remains in general of monuments influenced by the Ionic order were only attested previously in a handful of Iranian sites, such as Susa, Masjed Suleiman, Bisotun and Nahavand (Fig. 1), and Ionic type capitals were only known from two of these sites. The introduction of this architectural style, generally connected with the Greek-Macedonian dominance over Iran, is held to have become common in the Seleucid period and to have persisted in the Parthian period under the influence of Hellenistic architecture.

The earliest documented Ionic type capitals come from the ruins of an ancient pavilion at Khurheh (Mahalat) in the Markazi Province of central Iran. In spite of Herzfeld's (1941: 284) original interpretation of this edifice as a Seleucid temple dedicated to the Greek god of grape harvest and wine, Dionysus, further excavations by an Iranian archeological team, under the supervision of Mehdi Rahbar, indicated that the

Fig. 1 Map of Iran indicating sites mentioned in the text

columns and capitals surviving at the site were actually a part of a Parthian era administrative pavilion (Rahbar 1999, 2003: 104; for different interpretations proposed, see: Kleiss 1981, 1985).[1] Based on the results of excavations and surveys that yielded no materials which could be dated reliably to the Seleucid period, Rahbar believed that the edifice at Khurheh belonged to the Parthian period, and its Ionic type capitals

emulated Seleucid architecture (Rahbar 2003: 133).

The second relevant discovery was made during the first season of archeological excavations in the Dokhaharan neighborhood of Nahavand, the probable location of the main temple of the Seleucid city of Laodicea. This capital, in pure Ionic style, was carved out of a relatively high-quality limestone in bright cream color, and is decorated with two contracted volutes on the sides (Rahbar 2006; Rahbar and Alibaigi 2009; Rahbar et al. 2014: Pl. 10). A further quasi-Ionic capital was recovered from the monument of

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[1]For the different interpretations proposed, see also: http://iranohellenica.eie.gr/content/catalogue/kurha/documents/1869838867.

Bard-i Nishandeh, a structure that probably had a religious function (Ghirshman 1975: Pl. 18, No. 171; Pl. xxiv, nos. 1–4). A spiral design, like the Ionic capitals, decorating the façade of this capital with human motifs at its center. Similar motifs, rendering the bust of a woman or goddess, adorned the gypsum capitals of Qaleh Zahak which also evoke counterparts in the Ionic order (Qandgar et al. 2004: 214, 3; 215, 2; Qasemi 2009: 544 and 588).

To the foregoing examples, one may add the half-columns with Ionic type capitals carved on the façades of a number of rock-cut tombs, such as those of Da-o Dokhtar, at Fahlian in the Fars province (Herzfeld 1941: Tablet 37), and Qiz Qapan near Suleimanieh (Von Gall 1988: 564, Fig. 4). The forms of the currently known instances suggest that the sum of the Ionic and Ionic type capitals found in Iran constitute creations of the Seleucid to the Parthian periods and should, therefore, be studied in this historical context.

2　The Recently Discovered Capital

In February 2017, one of the authors of the present study, Shahram Aliyari, was informed about the accidental discovery of a column capital within a farmland area south of Shiyan village, some 16 km to the west of Islamabad-e Gharb, in the southern part of the province of Kermanshah. The capital was moved to a villager's house and was delivered later, in June 2017, to the Cultural Heritage office of the Islamabade Gharb County.

This new capital is carved out of a high quality limestone with bright cream color. It is relatively modest in size, measuring 62 cm in width, 46 cm in thickness and 54 cm in height. The capital is decorated with two carved contracted volutes which are folded by a rope at the middle. An acanthus leaf with 11 points is decorating both sides of the capital. The end of this leaf reaches the mid-section of the rope that is rolled up round the capital.

Its shaft, measuring 36 cm in diameter, is decorated with A row of reels and beads are carved all around the column's shaft in a very neatly arranged manner and decorated the simple capital as well. The top surface of the capital is cut into a flat 42×42 cm square, its four corners leaning slightly outward. There is a square cavity in the center of this quadrilateral surface with the dimensions of 5×5 cm and 4 cm depth which could be fastened to other parts.

This new capital is more closely comparable to those discovered in Khurheh (Herzfeld 1941: Fig. 384; Hakemi 1990: Fig. 17; Rahbar 2003: 68, Fig. 16), Nahavand (Rahbar 2006; Rahbar and Alibaigi 2009; Rahbar et al. 2014) and Qizqapan (Von Gall 1988: 564, Fig. 4), as well as to the example from the Oxus temple (Takht-e Sangin) in Tadjikistan (Litvinsky and Pichikian 1998: Figs. 4, 5 and 6).

3　The Context of the Discovery

The find spot of the new capital is located within the area of an important ancient site which was first identified by Abbas Razmpoush, who posited a Parthian and Sasanid period occupation. Razmpoush registered the site in his report as the largest one in the Shiyan plain, under the name Mel-e Qasem and code 186 (Razmpoush 2009). Mel-e Qasem is the name of a small mountain pass on the south of the site. The local name of the site is Tepe Hassan-Hossein, since it is located at middle of the one farmlands of two brothers named Hassan and Hossein (Figs. 2, 3, 4 and 5).

The site is located at the central of Shiyan inter-mountainous plain, 2.5 km far from the Tappeh Qelay Shiyan of Shiyan village and 15.8 km on the eastern side of the Islamabad-e Gharb city center (coordinates: N: 34° 2′ 47.76″; E: 46° 40′ 52.17″; asl: 1387). The site, measuring about 600×250 m, covers an area of 15 ha. A tell-shaped elevation at its center, 120 m in diameter and 6.5 m in height, is connected to a smaller tell on the north. The once equally
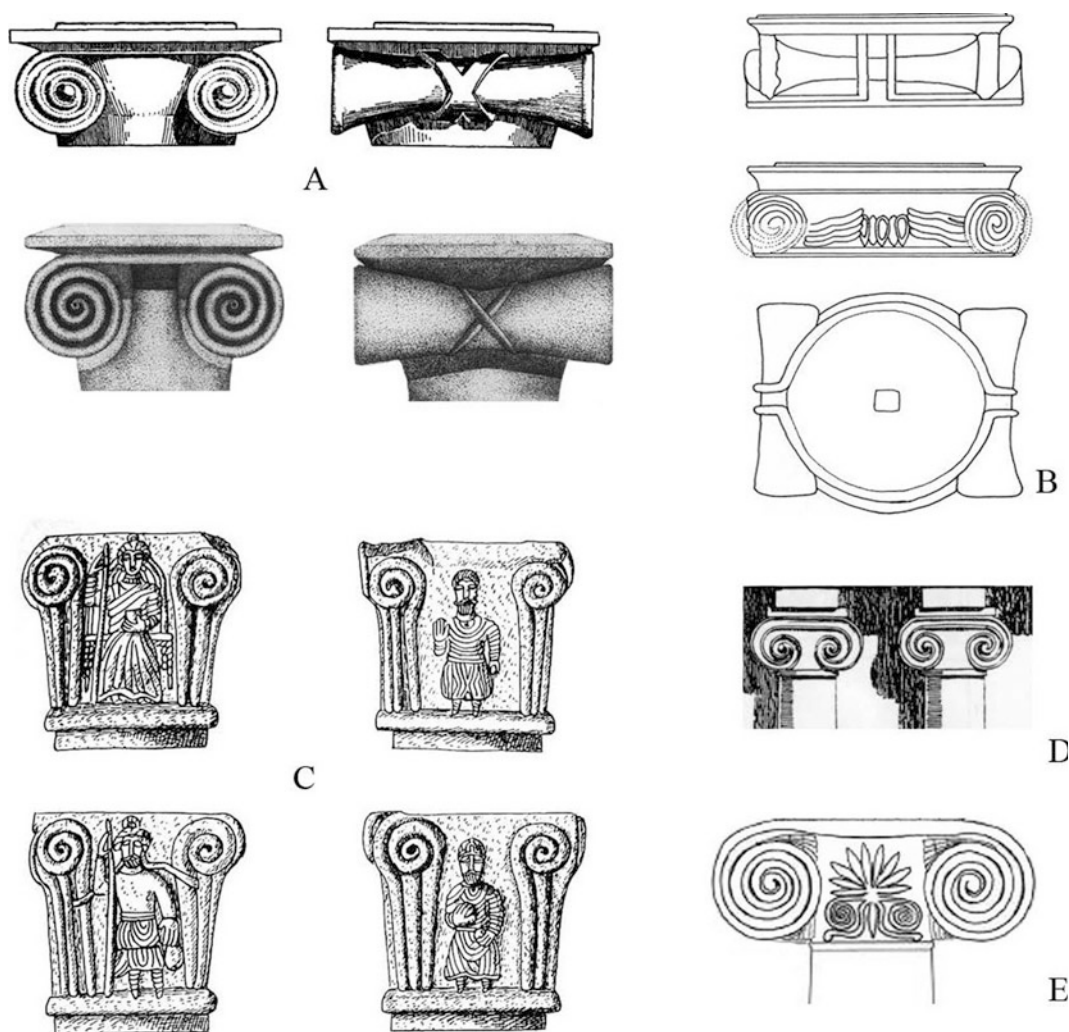
Fig. 2 Ionic Capitals from different places: **a** Khurhe (Herzfeld 1941: Fig. 384; Hakemi 1990: 17), **b** Nahavand (Rahbar et al. 2014: Pl. 10), **c** Masjed Suleiman (Ghirshman 1975: Pl. 18, No. 171; Pl. xxiv, nos. 1–4), **d** Da-o Dokhtar Rock cut tomb (Herzfeld 1941: Pl. 37) and **e** Qiz Qapan Rock cut tomb (von Gall 1988: 564: Fig. 4)

elevated northwestern and southeastern sides of the site were destroyed during a levelling of the farmlands in 2009 and works connected with the modern irrigational system. The northwestern tepe is currently a high and wide embankment in a rectangular area of 115 m length and 50 m width (Razmpoush 2009). The southeastern Tepe, which is currently a corn farm, is totally destroyed, and its remains are scattered in the vicinity. Its light grey colored soil contains a considerable amount of Sasanian ceramics.

Surface finds at Mel-e Qasem consist of Parthian and Sasanid ceramics, scattered throughout the area of the site, and especially across its destroyed north-western and southeastern sides (Razmpoush 2009) (Fig. 6).

Except for the mentioned column's capital, no more similar stone remains were identified. Remains of rubble architecture with plaster mortar were observed on the northwestern side of the site and inside various pits made by farmers.

Fig. 3 The Gybsum Capitals from Qaleh Zahak, East Azarbaijan Province, NW Iran (Qasemi 2009: 544 and 588)
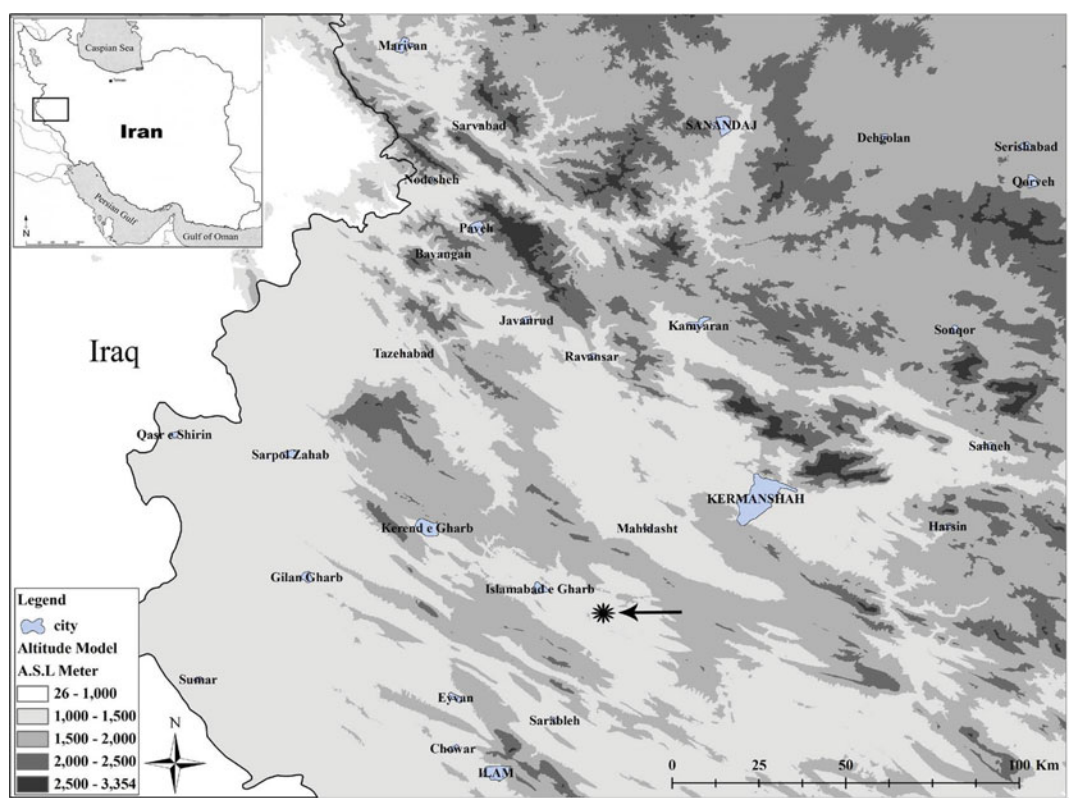

Fig. 4 The location of Tepe Hassan-Hossain in the west of Islam Abad-e Gharb region (Courtesy of Saeid Bahramiyan)

Fig. 5 The location of Tepe Hassan-Hossain and location of discovered Ionic Capital, 1 Tepe Qaleh Shiyan, 2 Sasanian Fire temple of Shiyan. 3 Location of discovered Ionic Capital. 4 Tepe Hassan-Hossain
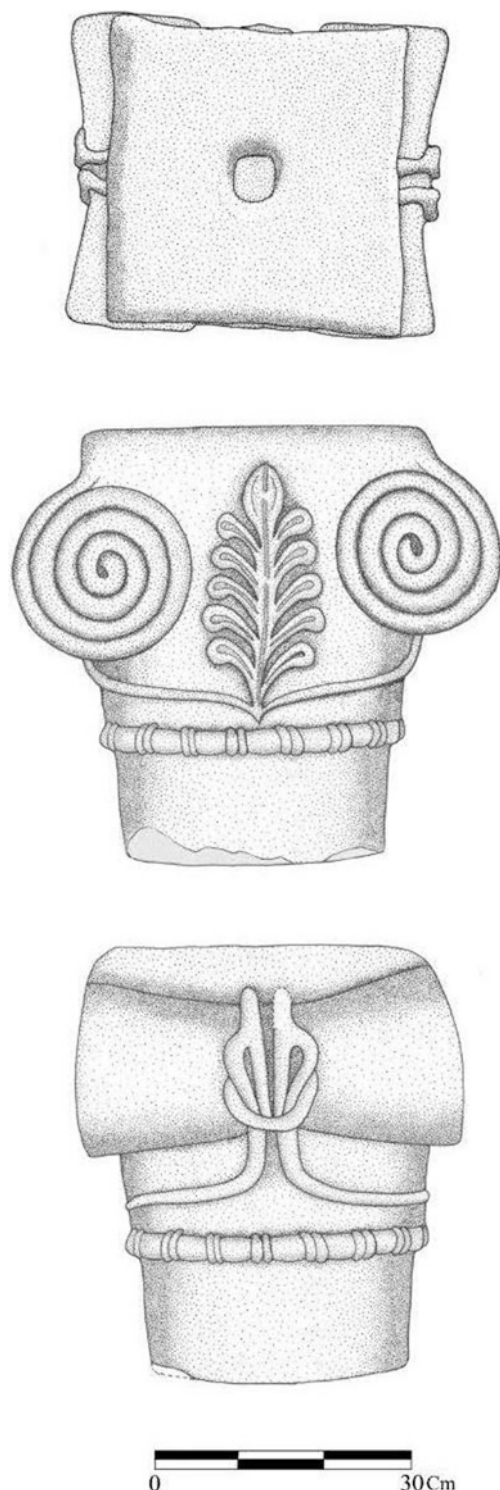

Fig. 6 Ionic capital from Tepe Hassan-Hossain

Fig. 7 Sketched plan of Ionic capital from Tepe Hassan-Hossain (drawing by Naser Aminikhah)

4 The Greek Inscription Reportedly Discovered at Harunabad (Islamabad-e Gharb)

The recent discovery at Shiyan brings to mind an earlier Greek epigraphic find from the same region (Fig. 7).

Writing in the second half of the nineteenth century, J. Felix Jones mentioned in his travelogue a gravestone with a Greek inscription discovered in 1844 in Harunabad village (present Islamabad-e Gharb city), alongside the Great Khorasan Road (Jones 1849: 273). A photograph of the grave stone is not available, but Jones drew a sketch of it (Jones 1849: 273), and a transcription and translation of the text were subsequently published by Tarn (1938: 366), Robert (1967: 295) and Rougemont (2012: 144–145, no. 69). The inscribed gravestone also forms the subject of a new study by Potts (2017).[2]

The stone is broken on the lower part. According to the Greek epitaph, it belonged to a certain Eumenes, son of Demetrios, of Samaria (or Samara) (Rougemont 2012: no. 144–145).

The exact find spot of the gravestone is unknown. The main site in the vicinity of Harunabad is Tepe Choqa Gavaneh, but excavations there by Mahmoud Kordevani and Kamyar Abdi did not yield any important Seleucid or Parthian remains (see: Kordevani 1969; Abdi 1999, 2000). One cannot even be certain that the stone was actually discovered in the Harunabad region. One knows that a few years after its discovery, when Colonel Chirikov visited the area, the gravestone was nowhere to be found, a circumstance that led Chirikov to assume that "the local Kurds must have hid the grave stone" (Chirikov 1999: 180). The possibility of a link, however, between this stone and

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[2]Since the Greek language and writing has not been through many changes during the centuries and there is not big difference between its ancient form and recent form, the researchers doubt the antiquity of the grave stone. Therefore, the above mentioned grave stone could belong to a merchant from Samarra and even from the recent centuries.

Fig. 8 Some Parho-Sasanian potsherds from Tepe Hassan-Hossain (Razmpoush 2009)
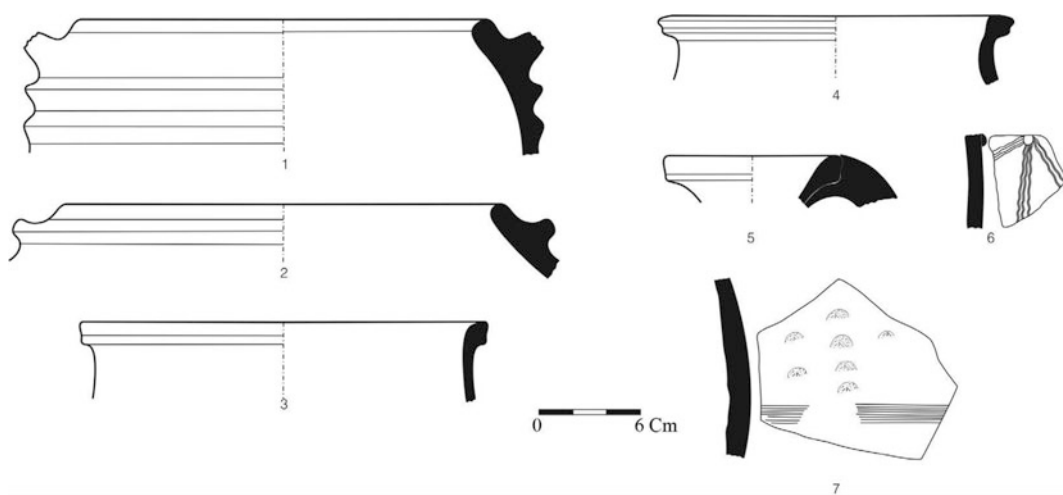

Fig. 9 Drawing of some Partho-Sasanian potsherds from Tepe Hassan-Hossain (Razmpoush 2009)

the newly discovered capital at Shiyan—both of them discoveries that point to affinities with the Greek world—cannot be entirely dismissed (Figs. 8 and 9).

Considering the small distance of 16 km between the site at Hassan-Hossein and the old Harunabad village, the epitaph could have also been discovered at Hassan-Hossein and moved to

Fig. 10 Greek epitaph from Harunabad (Modern Islam Abad-e Gharb) (Jones 1849: 273)

Harunabad in order to be presented to the village chief. Something analogous occurred in the case of the capital. Following its discovery, it was moved to Shiyan village at a distance of 6 km from its find spot. Be that as it may, these two discoveries are significant, for they point to the existence of at least one Seleucid/Parthian site, if not two separate ones, on this stretch of the Great Khorasan Road (Fig. 10).

5 Conclusion

Earlier sporadic discoveries indicated the introduction of Ionic type capitals in Iran in the Seleucid period and testified for its evolution locally in the subsequent Parthian era. The evidence, however, about the currency of the Ionic architectural style in Iran is generally limited to date. The Ionic type capital recently discovered in Tepe Hassan-Hossein, in the Shiyan plain along the Great Khorasan Road, forms a welcome addition to these earlier known instances. It may also point to the location of an important structure of the Seleucid/Parthian periods in this strategically important part of the Median territory, in which Seleucid and Parthian occupation, as attested by written documents, is yet to

substantiate archaeologically. It is hoped that future excavations at the capital's find spot and new discoveries will help to supplement the available historical and geographical insights toward a better understanding of this region's settlement history.

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Some Notes on the Numismatic Evidence for Imitations in Iran from Third to First Century B.C.

Philipp Schwinghammer

Abstract

The following article is dealing with the concept of imitation in general, taking examples of Iranian imitation coinage from the third to first century AD in consideration. This imitation system starts with the original coinage, which is the starting point of imitations, and is ending with a new image of coinage. It's an attempt to organize all these different kinds of imitations. Therefore we can differ between naturalistic, barbaric and abstract embodiments.

1 Introduction

Ancient coins are not only a unit of value, they are a propaganda toll as well. With the help of their design varieties of messages could be transported from one place to another. The portrait of a king represents his idea of power showing his face giving a guarantee for the value and acceptance of his coins. Often well known coin designs have been standing for good quality, high value and acceptance. Therefore, these coin designs have been imitated to fulfil a similar economic and symbolic value. Imitations could be seen as contemporary counterfeits or as simple copies from an aesthetic point of view. Taking a representative sample of published coin hoards in consideration, we can notice a certain amount of Imitations in Ancient Iranian coin finds from the first to the third century B.C. These Imitations will be discussed in the following article emphasizing the importance of Imitations in Ancient economy.

2 The Concept of Imitations

The term Imitation[1] is frequently used in numismatic literature. Regarding the mints of the Arabian Peninsula we can reconstruct a certain Imitation step system which could also be helpful for other periods in history describing Imitations of coins.

At this point, the concept of Imitations should be understood as a possible form of transculturality, as well as the theory of general concept of coin design which is indispensable for the classification of Imitations; this will be defined in its principles.

Generally speaking, any Imitation naturally results from an original. Of course this is done in an altered form, whereby the Imitation can be distinguished from its original by another style or new picture elements. This would be an Imitation of a basic type, without replacing the original exactly. Regarding this situation Imitations could be subdivided in different steps or phases.

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[1]This Imitation step system has been published in Schwinghammer (2013: pp. 209–226, 2017).

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In another point of view it's also possible to distinguish between different kinds of Imitation.

For example those which are imitating the coin image itself. It could also be imitating the composition of the original or individual image elements, the production of the piece as well as the artistic design. Therefore, I would like to sum up these general thoughts in the following model distinguishing between the following types of Imitation:

A. Imitation of the coin image
B. Imitation of composition
C. Imitation of general design and individual picture elements
D. Imitation of production
E. Imitation of style and the artistic design

A. **Imitation of the coin image**

This kind of Imitation is the most common and most prominent of all, in which primarily the image of the original is imitated. As well the coin image of both sides as only the image of the obverse and reverse could be imitated, also a hybrid combination of two sides from different originals could be possible. The best example for this kind of Imitation is the mint of Gerrha in Ancient Arabian peninsular, where you can find almost all steps of Imitation A.

Most likely, these steps of Imitation could be compared with those published by Robert Göbl in his „Ostkeltischer Typenatlas"[2] which he introduced for Celtic Imitations of Thasos pieces. This so-called Phase I has not to be understood as a strict rule in the development of coin image-related Imitations, but much more than a probable or possible level. Of course also individual phases could be skipped, which means that certainly not every mint must pass through all Imitation stages. An exception to this is the mint Gerrha in Bahrain, whose mint shows almost all steps of Imitation. For this reason on the basis of the mint of Gerrha this Imitation phase model has been worked out.

The first stage in this model is the original piece of the same or another mint. In the second phase there will be a restrike of the piece whereby the basic concept of the coin remains the same and no new image or text elements are introduced or combined with. In numismatic literature, such an Imitation is usually described to as a copy. We call this phase Imitation I. This Imitation I can be worked out with debased material and the same style, the same material and worse style and debased material and style, coined or cast. Each Imitation level is divided into three subgroups: Imitation a—naturalistic image regarding the original (with the concept of copy), Imitation b—barbaric and Imitation c—abstract. The structure of Imitation a is very similar to the original, but with fine differences in design and style to let distinguish them, whereas Imitation b shows a barbaric style and Imitation could hardly be recognized as imitating from its original regarding its abstract style.

Usually it is a made up of lines and points imitating the original image, which at the first look hardly seems to be related to its original. The next step is Imitation II, which shows now additionally to the imitated image a letter or a monogram in local script on the coin image, whereas the original legend could remain or disappear.

Imitation III, instead, shows additionally a whole legend in local language. The last step, Imitation IV, has to be seen as a completely new coin type resulting from Imitation I–III.

Summary of the Imitation step system:

Original
Imitation
Imitation Ia—naturalistic
Imitation Ib—barbaric
Imitation Ic—abstract
Imitation II
Imitation IIa—naturalistic
Imitation IIb—barbaric
Imitation IIc—abstract
Imitation III
Imitation IIIa—naturalistic
Imitation IIIb—barbaric
Imitation IIIc—abstract

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[2]Göbl (1973).

Imitation IV final product (own type and starting point for any further Imitation).

B. **Imitation of composition**

This is an Imitation, where not the image is imitated, but more the composition of the individual image elements. Of course certain image elements of the original piece can be used; but it is not a necessity.

As an example of such a Imitation both sides of the original can be used, only the obverse or the reverse, as well as two in a hybrid way composed sides.

C. **Imitation of general design and individual picture elements**

This kind of Imitation refers to a form which is neither imitating the picture of the coin in its general understanding or importance, nor the basic composition of this object, but individual parts of the original image or related embodiments.

This can be in the form of a scenic cut out or an extension of the image program. Therefore, it is an Imitation of the basic idea of the coin image. These general ideas of the coin image could be referring to both sides of the original, only to the obverse or reverse itself or hybrid composed type by to different originals could be created.

D. **Imitation of production**

This type of Imitation is a purely technical, without imitating figurative elements.

In detail, this Imitation method is confined on the production type of the piece.

E. **Imitation of style and artistic design**

This is an Imitation, which is imitating the style, the presentation and the artistic design of a particular piece, a region or a time.

With the help of this theoretical grading of Imitation steps it's possible to understand chronological series and issues of coin Imitations. As mentioned above the mint of Gerra is a perfect example how Imitations can be distinguished and classified. These Imitation from Gerrha have been found in several coin finds and hoards in Iran. Therefore, the following list of important coin finds from the third to first century B.C. will underline and highlight the existence and distribution of such and other Eastern Imitations in Ancient Iran (Fig. 1).

2.1 Numismatic Finding Spots in Iran from Third to First Century B.C.

The following list of coin hoards in Iran shows the concentration of Imitation through published coin hoards. Totally there are 50 Imitations in 7 hoards (IGCH 1796, 1803–1806, 1808, 1809) and one single find. These Imitations refer to originals of Alexander the Great (31 pieces), the Seleucid empire (17 pieces), Bactria (1 piece) and Athens (1 piece) and have been found in hoards dating between 150 and 100 B.C. Regarding our Imitation step system these Imitations could be classified as Imitation A with its steps I-II and are standing for the earliest form of Imitation. Among the following coin hoards there are no abstract Imitations, like Ic or IIc.

Certainly we have to distinguish between Imitations as contemporary forgeries (like sub-aerate issues) and Imitations as regular coinage which only imitates a certain coin type (like the Eastern Imitations of Gerrha/Arabia). Generally speaking Imitations played a certain role in the economy of Ancient Iran. Although there are only few examples in coin hoards, we can notice that these few examples have been found well widespread over a certain amount of coin finds and show that Imitations have been used beside originals.

Finding place: Pasargadae, 1963
Dating: ca. 280 B.C.
Finding amount: 34 pieces
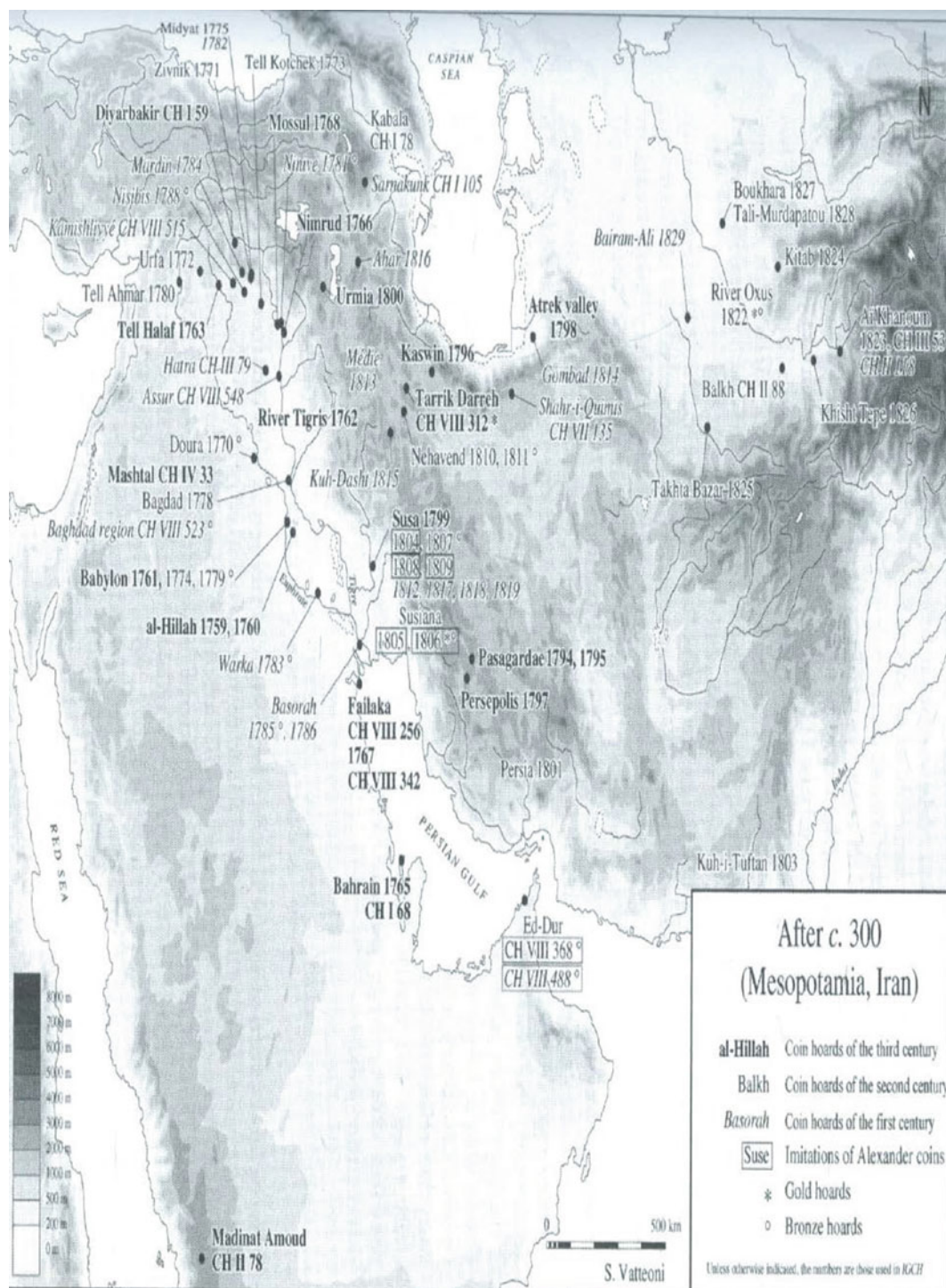**Literature**: IGCH (1794), Jenkins (1965: pp. 44–49)

Fig. 1 Map of coin hoards in Iran (Van der Spek 2007: p. 429)

Content:
20 tetradrachms of Alexander the Great
6 tetradrachms of Philip III.
8 tetradrachms of Seleukos I.

Finding place: Pasargadae 1962
Dating: ca. 280 B.C.
Finding amount: 14 pieces
Literature: IGCH (1795), Jenkins (1965: pp. 42–44)
Content:
5 tetradrachms of Alexander the Great
3 tetradrachms of Philip III.
3 tetradrachms and 3 drachms of Seleukos I.

Finding place: Kaswin (140 NW of Teheran) 1964
Dating: ca. 275 B.C.
Finding amount: ca. 150 pieces
Literature: IGCH (1796)
Content:
Finding composition:
38 tetradrachms of Alexander the Great
2 Imitations of tetradrachms of Alexander the Great
43 tetradrachms, 1 didrachm and 2 drachms of Seleukos I.
2 tetradrachms of Antiochos I.

Finding place: Persepolis 1934/1935
Dating: ca. 250 B.C.
Kind of finding: hoard
Finding amount: 10 pieces
Literature: IGCH (1797), Newell (1978: pp. 559–561)
Content:
1 tetradrachm of Seleukos I.
1 tetradrachm of Bagadat
1 tetradrachm of Oborzus
7 tetradrachms of Autophradates

Finding place: Atrek Valley, 1965
Dating: ca. 209 B.C.
Finding amount: ca. 1600 pieces

Literature: IGCH (1798)
Content:
ca. 600 drachms of Alexander the Great
ca. 15 drachms of Philip III.
ca. 5 drachms of Lysimachos
4 drachms of Antiochos II.
ca. 60 drachms of Arsakes I.
ca. 850 drachms of Arsakes II.
1 drachm Diodotus I.

Finding place: Susa, 1948/1949
Dating: 210–200 B.C.
Finding amount: 20 pieces
Literature: IGCH (1799); Le Rider (1965: pp. 243–244)
Content:
19 drachms of Alexander the Great
1 drachm of Lysimachos

Finding place: Urmia 1914
Dating: Third century B.C.
Finding amount: ?
Literature: IGCH (1800)
Content:
? tetradrachms of Alexander the Great

Finding place: Persia, 1932/1933
Dating: ca. 160 B.C.
Finding amount: ca. 17 pieces
Literature: IGCH (1801)
Content:
1 drachm of Antiochos III.
2 drachms of Seleukos IV.
16 drachms of Antiochos IV.

Finding place: Iran, 1970
Dating: ca. 150 B.C.
Finding amount: ca. 17 pieces
Literature: IGCH (1802)
Content:
1 AE of Antiochos II.
10 AE of Atiochos III.
3 AE of Antiochos IV.
3 AE of Demetrius I.

Finding place: Kuh-i-Tuftan, 1902
Dating: ca. 140 B.C.
Finding amount: ca. 90 pieces (26 pieces described)
Literature: IGCH (1803), Rapson (1904: pp. 311–325)
Content:
2 hemidrachms of Antiochos II.
1 drachm of Demetrius I.
16 Imitations of Seleukid drachms (Imitation Ib)
1 obol of Demetrius I., Bactria
1 obol of Euthydemos II.
1 obol of Antimoachos Theos
1 obol of Panatleon
2 obols of Eukratides
1 Imitation of an obol of Eukratides (Imitation Ib)

Finding place: Susa 1933/1934
Dating: after 140 B.C.
Finding amount: 97 pieces
Literature: IGCH (1804), Le Rider (1965: pp. 246–248) (trésor 5)
Content:
5 drachms and 6 tetradrachms of Alexander the Great
11 Eastern imitations of tetradrachms of Alexander the Great (Imitation IIa–IIb)
1 drachm of Philip III.
4 tetradrachms of Lysimachos
1 tetradrachm of Antiochos II.
1 tetradrachm of Seleukos III.
3 tetradrachms of Antiochos III.
4 tetradrchms of Seleukos IV.
8 tetradrachms of Antiochos IV.
4 tetradrachms of Antiochos V.
10 tetradrachms and 1 drachms of Demetrius I.
21 tetradrachms and 1 drachm of Alexander I. Baia
4 tetradrachms and 1 drachm of Demetrius II.
1 drachm of Arados
1 tetradrachm of Kamniskires I, Elymais
2 tetradrachms of Harithat, Hagar
2 tetradrachms of Abal, Hagar
3 drachms of Mithridates I.

1 tetradrachms of Euthydemos, Bactria

Finding place: Susiana, 1958/1959
Dating: 138 B.C.
Finding amount: ca. 200 pieces
Literature: IGCH (1805), Mørkholm (1965: pp. 127–156)
Content:
10 Eastern Imitation of tetradrachms of Alexander the Great (Imitation Ia–Ib)
2 tetradrachms of Antiochus II
1 tetradrachm of Seleucus III
5 tetradrachms of Antiochus III
12 tetradrachms of Seleucus IV
22 tetradrachms of Antiochus IV
5 tetradrachms of Antiochus V
43 tetradrachms of Demetrius I
17 tetradrachms of Alexander I Bala
2 tetradrachms of Demetrius II
1 tetradrachm of Kamniskires I
1 tetradrachm of Euthydemus I
2 tetradrachms of Eucratides I
1 tetradrachm of Heliocles

Finding place: Susiana, 1965
Dating: after 138 B.C.
Finding amount: ca. 493 pieces
Literature: IGCH (1806), Houghton and Le Rider (1966: pp. 111–127), Le Rider (1969: pp. 18–22), Fischer (1971: p. 171), Strauss (1971: pp. 109–140)
Content:
17 post. tetradrachms of Alexander III
1 Eastern Imitation of tetradrachm of Alexander the Great (Imitation Ib)
1 post. tetradrachm of Lysimachus
4 tetradrachms of Myrina
1 tetradrachm of Alabanda
1 tetradrachm of Side
3 tetradrachms of Antiochus II
1 tetradrchm of Apameia
1 tetradrachm of Antiochus Hierax
12 tetradrachms of Antiochus III
2 drachms of Antiochus III
1 AE of Antiochus III
17 tetradrachms of Seleucus IV

1 drachm of Seleucus IV
1 AE of Seleucus IV
2 tetradrachms of Antiochus the Young
42 tetradrachms of Antiochus IV
1 Imitation of tetradrachm of Antiochus IV (Imitation Ib)
5 drachms of Antiochus IV
17 tetradrachms of Antiochus V
1 drachm of Antiochus V
1 AE of Timarchus
52 tetradrachms of Demetrius I
17 drachms of Demetrius I
2 goldstaters of Demetrius I
1 AE of Demetrius I
38 tetradrachms of Alexander I Bala
7 drachms of Alexander I Bala
2 tetradrachms of Antiochus IV
41 tetradrachms of Demetrius II
9 drachms of Demetrius II
1 drachm of Antiochus VI
2 tetradrachms of Kamniskires Soter
3 tetradrachms of Mithradates I
1 AE of Mithradates I
2 tetradrachms of Euthydemus I
7 tetradrachms of Eucratides I
3 tetradrachms of Eucratides I/II
9 tetradrachms of Heliocles

Finding place: Susa, 1933/1934
Dating: ca. 125 B.C.
Finding amount: 125 pieces
Literature: IGCH (1807), Unvala (1935: pp. 158–160), Le Rider (1965: pp. 249–250) (trésor 7)
Content:
4 AE of Antiochus III
1 AE of Seleucus IV
8 AE of Antiochus VII
3 AE of Seleuceia A.D. Tigrim
1 AE Hyknapses
5 AE of Kamniskires I
56 AE of Tigraeus
12 AE of Mithradates I
37 AE of Phraates II

7 AE of Phraates II or Artabanus 1
28 AE of Artabanus I

Finding place: Susa, 1934/1939
Dating: 150–100 B.C.
Finding amount: 42 pieces
Literature: IGCH (1808), Le Rider (1965: pp. 245–246) (trésor 4), Fischer (1968: p. 10)
Content:
7 tetradrachms of Alexander III
1 drachm of Alexander III
6 Eastern Imitations of tetradrachms of Alexander III (Ia–Ib)
1 tetradrachm of Lysimachus
1 tetradrachm of Antiochus I
1 tetradrachm of Seleucus III
16 tetradrachms of Antiochus III
4 tetradrachms of Seleucus IV
5 tetradrachms of Demetrius I

Finding place: Susa 1951/1952
Dating: 145–100 B.C.
Finding amount: 19 pieces
Literature: IGCH (1809), Le Rider (1965: pp. 244 ff) (trésor 3), Fischer (1968: p. 10)
Content:
7 tetradrachms of Alexander III
3 drachms of Alexander III
1 Eastern Imitation of tetradrachm of Alexander III
1 tetradrachm of Antiochus III
1 drachm of Antiohcus III
1 tetradrachm of Seleucus IV
1 drachm of Antiochus IV
1 drachm of Demetrius I
1 tetradrachm of Alexander I Bala
1 drachm of Mithradates I
1 tetradrachm of Euthydemus I

Finding place: Nehavend, 1930
Dating: ca. 100 B.C.

Finding circumstances: found near IGCH 1811
Finding amount: 15 pieces
Literature: IGCH (1810)
Content:
1 AE of Mithradates I
14 AE of Mithradates II
Finding place: Nehavend 1935
Dating: ca. 100 B.C.
Finding circumstances: found near IGCH, 1810
Finding amount: 10 pieces
Literature: IGCH (1811)
Content:
10 AE of Mithridates II

Finding place: Susa, 1947/1948
Dating: after 90 B.C.
kind of finding: pot hoard
Finding amount: 67 pieces
Literature: IGCH (1812), Le Rider (1965: pp. 248 ff) (trésor 6), Fischer (1968: pp. 11)
Content:
50 tetradrachms of Alexander III
1 drachm of Antiochus III
2 drachms of Antiochus IV
12 drachms of Alexander I Bala
1 drachm of Demetrius II
1 tetradrachm of Tiraeus I

Finding place: Media, 1923
Dating: 90–85 B.C.
Finding amount: +1600 pieces (380 published)
Literature: IGCH (1813), Newell (1924: pp. 142–180), Dayet (1925: pp. 63–66), Hill (1927: pp. 206 ff).
Content:
22 tetradrachms of Alexander III
2 drachms of Alexander III
1 tetradrachm of Lysimachus
4 tetrdrachms of Ariarathes VI
4 tetradrachms of Antiochus IV
2 tetradrachms of Antiochus V
9 tetradrachms of Demetrius I
2 drachms of Demetrius I
15 tetradrachms of Alexander I Bala
7 drachms of Alexander I Bala

25 tetradrachms of Demetrius II
4 tetradrachms of Antiochus VI
3 drachms of Antiochus VI
79 tetradrachms of Antiochus VII
3 tetradrachms of Alexander II Zebina
1 tetradrachm of Antiochus VIII- Cleopatra
69 tetradrachms of Antiochus VIII
67 tetradrachms of Antiochus IX 4 tetradrachms of Tyre
1 tetradrachm of Mithradates I
4 tetradrachms and 8 drachms of Phraates II
3 tetradrachms and 4 drachms of Artabanus I
50+ tetradrachms of Mithradates II
2 tetradrachms of Euthydemus I
2 tetradrachms of Demetrius 1 tetradrachm of Antimachus I
16 tetradrachms of Eucratides I
7 tetradrachms of Heliocles

Finding place: Gombad 1955
Dating: before 53 B.C.
Finding amount: 13,000 pieces
Literature: IGCH (1814), Le Rider (1965: pp. 394 and 444), Simonetta (1966: pp. 29–30), Mørkholm (1965/1966: p. 12)
Content:
1 tetradrachm of Antiochus IV
4 tetradrachms of Demetrius II, 1st reign
11 tetradrachms of Antiochus VII
89 tetradrachms of Antiochus VIII
16 tetradrachms of Antiochus IX
86 tetradrachms of Antiochus X
19 tetrdrachms of Seleucus VI
11 tetradrachms of Philip Philadelphus
1 tetradrachm of Kamnaskires and Anzaze
1 tetrdrachm and 71 drachms of Mithradates I
50 drachms of Phraates II
ca. 50 drachms of Artabanus I ca. 25 tetradrachms and ca. 200 drachms of Mithradates II
ca. 200 tetradrachms and "thousands" of drachms of „Gotarzes I"
ca. 40 tetradrachms and "thousands" of drachms of Sinatruces
1 tetradrachm and ca. 200 drachms of Phraates III
"some"drachms of Mithradates III

3 tetradrachms and "some" drachms
of Orodes II

Finding place: Kuh-Dasht, 1970
Dating: ca. 50 B.C.
Finding amount: ca. 700 AR
Literature: IGCH (1815)
Content:
"very few" drachms of Seleucids 4–5 drachms of
Mithradates I
2 drachms of Phraates II
"a few" drachms of Mithradates II
more than 150 drachms of „Gotarzes I"
more than 100 drachms of Phraates III
more than 100 drachms of Mithradates III
more than 125 drachms of Orodes II

Finding place: Ahar, 1923
Dating: ca. 38 B.C.
Finding amount: ca. 600 pieces (187
described)
Literature: IGCH (1816), Caley (1955: pp. 4–5),
Simonetta (1966: p. 28, no. 4)
Content:
5 drachms of „Gotarzes I"
2 drachms of Phraates III
2 drachms of Phraates III or unknown king
178 drachms of Orodes II

Finding place: Susa, 1927/1928
Dating: after 31 B.C.
Finding amount: 1427 pieces
Literature: IGCH (1817); MMAP (1934: pp. 28–
60), Le Rider (1965: pp. 250–251) (trésor 8)
Content:
139 drachms of Orodes II
1288 drachms of Phraates IV

Finding place: Susa, 1951/1952
Dating: after 30 B.C.
Finding amount: 68 pieces
Literature: IGCH (1818), Le Rider (1965:
pp. 251–252) (trésor 9)
Content:
12 drachms of Orodes II

56 drachms of Phraates IV

Finding place: Susa ? before 1909
Dating: after 28 B.C.
Finding amount: more than 50 pieces
Literature: IGCH (1819), Hill (1922)
Content:
More than 50 tetradrachms of Attambelus I,
Characene

Finding place: Chashamh - i - Ali 1934
Dating: ca. 1st half first century B.C.
Finding amount: 531 pieces (367 pieces
described)
Literature: CH I.117
Content:
1 coin of Antiochus I
3 Seleukid coins
63 Parthian coins (Mithridates I- Vonones I)
285 Parthian coins (Attr. In BMC bei Seleukia)
15 probably Parthian coins

Finding place: East Iran, 1968
Dating: ca. first century B.C.
Finding amount: 57 pieces
Literature: CH II. 126
Content:
9 drachms of Mithridates II, Parthia
8 coins of Theopator Nikator
16 coins of Autokrator Philopator
24 coins of Theopator Euergetes

Finding place: Susa 1934/1939
Dating: after 4 AD
Finding amount: 33 pieces
Literature:Le Rider (1965: pp. 252–253) (trésor
10)
Content:
32 drachms of Phraates IV
1 drachm of Phraates V

Finding place: Susa, 1937
Dating: after 19 AD
Finding amount: 216 pieces

Literature: Le Rider (1965: p. 253) (trésor 11)
Content:
216 AE of Seleucia A.D. Tigrim

Finding place: Susa 1927/1928
Dating: after 45 AD
Finding amount: 6 pieces

Literature: Le Rider (1965: pp. 253–254) (trésor 12)
Content:
6 tetradrachms of Attambelos III

Examples for Imitations found in Iran (Figs. 2, 3, 4, 5, 6 and 7).

Fig. 2 Imitation Ia: subaerate based on the model of Athenian tetradrachms (Le Rider 1965: p. 229, pl. XL, 644)

Fig. 3 Imitation Ia: subaerate based on the model of Macedonian tetradrachms (Le Rider 1965: p. 244, pl. XLI, 639 ex trésor 3)

Fig. 4 Imitation Ib based on the model of a drachm of Antiochos IV (Houghton and Le Rider 1966: pl. V, 41)

Fig. 5 Imitation Ia on the model of Macedonian tetradrachms with additional element of dog on the reverse (Houghton and Le Rider 1966: pl. X, 164)

Fig. 6 Imitation IIa on the model of Macedonian tetradrachms with additional letter Sin on the reverse (Le Rider 1965: p. 201, pl. XLV, 495-3 ex trésor 5)

Fig. 7 Imitation IIb on the model of Macedonian tetradrachms with additional letter Sin on the reverse (Le Rider 1965: p. 201, pl. XLV, 496-1 ex trésor 5)

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Daggers in Parthian Iran

Marek Jan Olbrycht

Abstract

This article focuses on Parthian daggers. A common dagger type among Parthian elite's arms was the ring-pommel dagger worn in an elaborate scabbard. In the iconography of monuments in the Parthian Empire (including the sites of Shami, Susa, Hatra, Dura Europos and Ashur), daggers in sheaths attached with straps to the thigh are depicted on a number of reliefs. Coin depictions suggest that the Parthians adopted ring-pommel daggers and medallion-scabbards as royal emblems in the first half of the first century B.C. at the latest.

Keywords

Dagger · Parthian empire · Iconography

1 Introduction

The Parthians were famous for their formidable bows, but they also used shafted weapons (spears and javelins), long swords, and daggers. This article focuses on the Parthian daggers.[1] A common dagger type among Parthian elite's arms was the ring-pommel dagger worn in an elaborate scabbard. Genuine daggers with the ring-pommel were discovered at Tillya-tepe (Afghanistan), ed-Dur (U.A.E. in the Persian Gulf region), in the Caucasus region and in the Sarmatian burials of the Caspian-Pontic steppes (Russia and Ukraine). In the iconography of monuments in the Parthian empire (including the sites of Shami, Susa, Hatra, Dura Europos and Ashur), daggers in sheaths attached with straps to the thigh are depicted on a number of reliefs and in sculpture in the round. Concerning the sheaths, the most striking and widespread type used in the Parthian empire was the four-lobed scabbards with four side applications or projections.

Achaemenid soldiers used the so-called akinakes daggers and the "Elamite" daggers. The akinakes scabbards were fastened at the belt by means of a string from a loop in the form of a P. The lower end of the scabbard (chape) was fastened at the thighs. The P loop was hanged up with a strip or directly to the belt. The so-called "Elamite" daggers, with elaborate hilts, were carried at the belt and hidden in wide coats (Olbrycht 2015: 360–361, Fig. 18). Unlike the Achaemenid Persians, Parthians usually used two daggers whose scabbards were often provided

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with four rounded projections intended for their attachment to the thigh by means of leather straps. The straps were led through holes in the projections. In some cases, the top pair of straps or an additional strap led to a belt hidden under the warrior's jacket, or to a strap suspended from the belt, allowing the top part of the scabbard to be fastened.

There are actual examples of ring-pommel daggers from within the Parthian empire. Two dagger blades and a separate ring (originally probably a ring-pommel) have been found at Shami, Iran (Stein 1940: 154, Plate VI). Genuine ring-pommel daggers (at least five artefacts) and their depictions on figurines are known from ed-Dur (U.A.E.) in the Persian Gulf region (Delrue 2006), an area under Arsacid political supremacy. Likewise, two ring-pommel-daggers were excavated on Bahrain in layers of the Parthian period (Delrue 2006: 209).

Daggers with four-lobed sheaths were discovered at the necropolis of Tillya-tepe in western Afghanistan (ancient Bactria) (Sarianidi 1985, 1989; Olbrycht 2016). In Tomb no. 4, a prince was buried. His splendid weapons indicate his outstanding status; the prince was a vassal of the Arsacids. Apart from a long sword at his left side, the deceased had a dagger with a rounded pommel on his right. Its handle is covered with gold. The dagger has a bar cross-guard. The hilt of the dagger and the scabbard are ornamented with the scenes showing the mauling of the beasts. The lower, holed projections, were intended for straps as an attachment to the thigh (Fig. 1). The prince had to his left a sheath containing a short dagger and two knives. Similar sets of daggers and knives are known from nomadic tombs in Tuva and Mongolia in the fifth to third centuries B.C. (Sarianidi 1989: 101).

The best-known Parthian sculpture discovered in Iran, the Prince from Shami (Khuzestan province, Iran; now in the Iran's National Museum, Teheran), demonstrates typical Parthian costume and daggers, although the latter have no ring-pommels. The figure shows a V-necked jacket, trousers and leggings. The date of the sculpture is disputed—in my opinion a dating into the second half of the first century B.C. is the most probable.[2] The prince has two daggers attached at the right and left hip (Fig. 2). The hilt of the right dagger is flat, tapering towards the top, without pommel. The grip of the second dagger is broken and shows no narrowing shape. About the cross-guards one can say nothing for they are hidden in the scabbards that are partially covered with trousers. At both scabbards, two oblong projections are visible provided with knobs covering holes for straps. The scabbards has such projections on both sides respectively, thus each scabbard must have been provided with four side projections. Straps fastening the scabbards at the thighs are visible at the lower projections. The upper projections may have been fastened at the jacket but this seems improbable. No strap connecting the scabbards and the belt are visible, but the sculptor was perhaps not specific about such details. A strap may have been hidden under the jacket.

There are some depictions of the four-lobed daggers in the sculpture found in Susiana and Elymais (now the province of Khuzestan, Iran). A dagger's sheath with side projections is visible on a figure found in the Donjon area of Parthian Susa (Fig. 3) (Amiet 2001: 283, pl. 3.25). Another partially preserved figure discovered in the Acropolis of Susa demonstrates a dagger with the four-lobed sheath (Fig. 4) (Amiet 2001: pl. III.26).

Two figures in relief from Masjid-e Soleiman (Khuzestan, Iran) show elaborate daggers with side projections. Both pieces may be generally dated in the first to second centuries A.D. The first artefact, a flat relief, depicts a prince or an official with a dagger on his right thigh (Ghirshman 1976: vol. 2, pl. 78.1; Kawami 1987, cat. no. 25). The second relief (0.57×0.27 m), with only the lower part preserved), found next to the Large Temple of Masjid-e Soleiman, shows the hilt of a dagger on the figure's right thigh (Ghirshman 1976: vol. 2, pl. 79.5; Kawami 1987: cat. no. 26. Cf; Ghirshman 1976: 126).

Depictions of daggers are visible on two belt clasps from the British Museum showing

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[2]Dates range from the second century B.C. to the second century AD, see: Mathiesen (1992: II, 166–167), Kawami (1987: 63), gives 50 B.C.–A.D. 50.

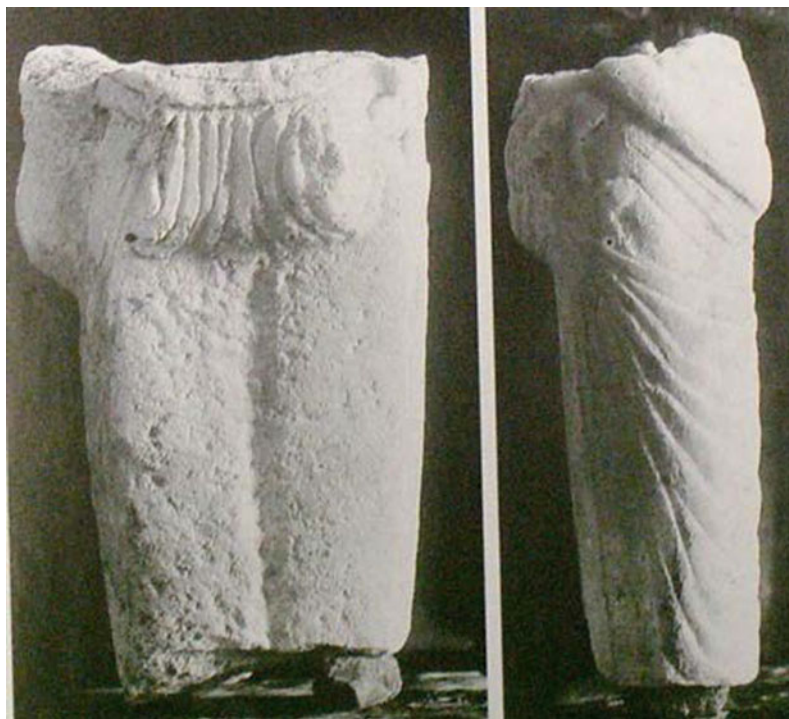**Fig. 1** Tillya-tepe (Afghanistan). Dagger and scabbard from Tomb 4. After: Sarianidi (1985: pl. on p. 215)

Fig. 2 Bronze statue of the
Shami Prince and his daggers.
National Museum of Iran,
Tehran. Photos by
M. J. Olbrycht

Fig. 3 Parthian stone statue from Susa. Donjon area. Height: 0.16 m. After: Amiet (2001: pl. 3.25)

Parthian riders (Olbrycht 2015: Fig. 21a, b; Curtis 2001: 306, Pl. XI-Ia-b.). The horsemen wear ring-pommel daggers in the lobed sheaths. An elaborate dagger sheath is depicted on a fresco from Kuh-e Khvajeh in Sistan. dated probably to the first century A.D. (Fig. 5) (Ghirshman 1962: Fig. 56).

There is a number of other representations of Parthian daggers and scabbards in sculpture, including reliefs and round sculptures from Hatra in northern Iraq. In most cases the sculptures show only two rounded projection directly under the hilt while the lower part of the daggers is hidden in the cloths (Winkelmann 2003: 54–58, 2004; 2013). A relief showing a standing Parthian prince with a long sword was discovered at Ashur (now Iraq). The prince has a dagger at each hip.[3] The scabbards are provided with four side applications. The pommels seem to be drop-shaped. The sculpture is firmly dated at the beginning of the first century A.D.

For any analysis of Parthian weapons, numismatic material is of particular importance. The Arsacids often showed themselves with weapons as important royal insignia on their coins. K. Tanabe noticed that a dagger in an ornamented scabbard worn on the left thigh is depicted as a royal emblem on some coins of Phraates IV (37–3 B.C.) (Tanabe 1993: Fig. 116–117, p. 42). In the early Arsacid period the most essential emblem was the bow as an attribute of royal power. Under Orodes II (57–38 B.C.), the daggers began to be presented as a special royal attribute. At the beginning, the ring-pommel daggers appeared, with scabbards usually provided with four rounded applications at sides and one at the chape. This type can be seen on the coins of Orodes II, Phraates IV (Fig. 6), Phraatakes, and Artabanos II, i.e. in the period ca. 57 B.C.–A.D. 40. A second type are daggers with a drop-shaped or slightly thickened grip. They appear on coins of Phraates IV, Phraatakes, Gotarzes and Vologases I, i.e. ca. 37 B.C.–A.D. 79. The scabbards show four side oblong projections and one application at the

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[3]Mathiesen (1992: II, 191–192), cat. no. 160.

Fig. 4 Sculpture from Susa. Acropolis area. H. 0.107 m. After: Amiet (2001: pl. 3.26)

chape. Another type are daggers with disc-shaped or spherical pommels, known from the coins from Phraates IV to Gotarzes II (37 B.C.–A.D. 51). The scabbards show four rounded disc applications, provided sometimes with short legs. At the chape there is a disc or a rounded element (Winkelmann 2006: 143–144).

In sum, Parthian coins demonstrate that under Orodes II the Arsacid kings began to show a specific dagger type as an essential royal attribute and symbol of power. Emblems depicted on Parthian coins often were vehicles of important propaganda statements in political ideology and its individual nature often reflected the political program of a Parthian ruler. Orodes II stemmed from the line of Sinatrukes (approx. 78/7–71/70 B.C.) who issued coins showing a tiara with stags.[4] Sinatrukes ascended to Parthian throne with the help of the Sakaraukai, with whom he had previously stayed (Lukian. *Makrob*. 15). Stemming from Central Asia, the Sakaraukai were among the nomadic tribes that invaded Bactria and Parthia in the 130–120s B.C. Taking advantage of a turmoil in Parthia, they made the Arsacid Sinatrukes king of Parthia. The new king's tiara boasts emblems indicative of this development as they make references to religious symbolism of Central Asian nomadic tribes. Tiaras decorated with deer were used by Sinatrukes and his son Phraates III. But patricide Orodes II, who murdered his father Phraates III, needed new royal emblems. While fighting for the Parthian throne, he was supported by the Suren clan and some nomadic tribes, probably the Yuezhi and Asioi from Bactria. Thus, if we look for the origins of the dagger types used by Orodes II (57–37 B.C.) and his successors, we must take into consideration nomadic tribes of Central Asia who conquered Bactria and became neighbors of the Parthians in the period ca. 130–110 B.C. In light of available evidence until Orodes II no ring-pommel daggers and elaborate scabbards appeared in Parthian official art. However, it seems probable that the Parthians, having close contacts to the steppe peoples of Central Asia, knew ring-pommel daggers and scabbards with rounded applications before Orodes II. But it was under the Sinatrukids that the new weapons became popular as royal and elite attributes.

The four-lobed daggers appeared in Sogdiana in the Bukhara oasis on the coins of Hyrkodes, a chieftain with steppe origins from the close of the second or early first century B.C. (Fig. 7) (Francfort 2012: pl. 16: Hyrkodes: Alram 1986: 1236–39: Olbrycht 2016: 23–24). Hyrkodes may have been linked to the Sakaraukai (Altheim and Stiehl 1970, 638. Alram 1986: loc.cit., rejected

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[4]Details in: Olbrycht (1997).

Fig. 5 Kuh-e Khvadjeh. Wall-painting from palace. After Ghirshman (1962: Fig. 56)

Fig. 6 Coin of Phraates IV (tetradrachmon). After: Gerhard Hirsch Nachfolger—Auction 326, Lot 1831, 2017 (coinarchives.com)

Altheim's suggestion. Contra Olbrycht 2016). On Hyrkodes' coins there is a protoma of a horse or an upright male figure with a spear and flames on his shoulders. This standing figure has a four-lobed dagger.

Four-lobed daggers appear as a royal attribute in Parthia on the coinage of Orodes II and Phraates IV (Olbrycht 2015: 360–369). However, it cannot be ruled out that they were used as an attribute of power already earlier, under Sinatrukes, when Parthian contacts with the Sakaraukai intensified. Orodes II abandoned the

use of the tiara with deer, which had been the attribute of his murdered father Phraates III, and preferred to have four-lobed daggers as his major attribute, with ornamented belts of the type found on the Tillya-tepe prince. Orodes' accession was connected with fighting in Bactria, during which the Sakaraukai were defeated (Pompeius Trogus, Prol. XLII. Cf. Olbrycht 1998: 113–114). For a time during the reign of Orodes II his relations with the Sakas of Sakastan were closer. However, Phraates IV revived the alliance with the Sakas of Bactria. Bactrian clans assisted him in

Fig. 7 Coin of Hyrkodes from Sogdiana. After: http://grifterrec.rasmir.com

his bid for the throne against Tiridates I (Olbrycht 1998: 118–119).

Aside from Iran proper, there is a number of sculptures in Kommagene (Turkey) showing splendid daggers in scabbards with four side applications. Kommagene, a country in eastern Anatolia on the Euphrates, was a small kingdom under Parthian political influence in the first century B.C. One of the Kommagenian kings, Antiochos I (ca. 70–36 B.C.), erected several sanctuaries with outstanding sculptures showing him in conjunction with some heroes and gods. The king is often depicted in an ornamented royal garb, with a scepter and a special crown. But aside from these regalia, an ornamented dagger is visible on most of the monuments on the king's left thigh (Arsameia, Nemrud Dagh).

A ring-pommel dagger is clearly apparent on the famous dexiosis relief, representing Antiochos and Herakles-Verethragna (Fig. 8). The scabbard, decorated with floral motifs, shows four side disc applications ornamented with lions' heads. A similar application is at the chape. The upper applications are connected to the belt by means of straps partially hidden under the ring-pommel dagger.

Similar ring-pommel daggers appear on several sculptures in Kommagene. Sporadically another type of dagger occured. On the relief showing Antiochos (wearing a unique torque) and Apollo-Mithras the dagger has a voluted pommel, resembling the antennae pommels of Sarmatian daggers. But the scabbard is of the usual type-with five rounded applications (Winkelmann 2003: Abb. 13).

Antiochos of Kommagene used different emblems and costumes to demonstrate his connections to the Achaemenids, Seleukids, and the Parthians. It is in this political context that the Parthian type dagger was introduced in Kommagene. We know that Orodes II of Parthia married a daughter of Antiochos of Kommagene (Cassius Dio, 49.23). It seems that this alliance promoted a strong Parthian influence in Kommagene visible in royal attributes—the Kommagenian king adopted Parthian daggers as important vehicles of his ideology. A similar process of the adoption of Parthian type daggers and Parthian clothes is visible in Edessa, Palmyra and Armenia (Seyrig 1937; Colledge 1987; Goldman 1993).

A Mithraic relief discovered at Dura Europos (Syria), dated to A.D. 169, depicts Mithras with a four-lobed dagger sheath on his thigh (Fig. 9) (Perkins 1973: pl. 34). Daggers in scabbards with four side projections or medallions were used in Palmyra, clearly as prestige attributes (e.g. a statue from Kasr el-Abiad) (Seyrig 1937: pl. 1; Goldman 1993: 199, 212–213; Colledge 1976: 153). Some statues from the Palmyra necropolis show a ring-pommel dagger on the right thigh (Amy and Seyrig 1936: 239). Daggers with lobed sheaths are depicted in Gandhara sculpture (Goldman 1993: 212). A dagger and a scabbard with four side applications were discovered in a tomb at Mtskheta in Iberia (Georgia) (Apakidze 1958: pl. 1bis; Tanabe 1993: Fig. 119, p. 42).

Given intense contacts among nomadic steppe peoples of Central Asia and the Caspian-Pontic

Fig. 8 Antiochos and Verethragna/Herakles—dexiosis relief. Arsameia on the Nymphaios. Kommagene (Turkey). Photos: M. J. Olbrycht

Fig. 9 Mithraic Relief, Dura Europos. Photo after: Yale University Photo Gallery (online)

steppes it is not surprising to find ring-pommel daggers and richly decorated scabbards among Sarmatian tribes in the Black Sea area. In the first B.C., a ring-shaped pommel began to appear as part of a one-piece iron-hilt. This type became dominant till second century A.D. Ring-pommel daggers and swords had a short straight metal guard.

From Sarmatian graves several richly decorated genuine daggers are known, including the objects from Porogi (second half of the first century A.D.), Dachi (end of the first century A.D.) and Gorgippia (mid second century A.D.). Daggers with ring pommels were used in the Bosporos (now the Crimea, and the Taman peninsula, Russia) in the period first century A.D. to mid second century A.D. Such weapons, in conjunction with scabbards with side projections, are depicted on some funerary stelae stored at the Kerch (Pantikapaion) Museum. Such a dagger is to be seen on the Chrestion's stele (first century AD, Kerch). The dagger with a bar guard is attached to the thigh, the pommel is fastened to a strap on the hip. The scabbard is provided with side projections (Treyster 2010: 148). Chrestion proudly demonstrates his dagger and scabbard as his principal prestige attributes and weapons (Fig. 10). On the Atossos' stele (Kerch) the ring-pommel dagger's scabbard has side projections (first half of the second century A.D.) (Treyster 2010: 154).

The origin of the ring-pommel daggers has been a disputed issue (Ginters 1928; Khazanov 1971: 8–9; Olbrycht 2012; Brosseder 2015: 222–226). In the light of the available data it is evident that the ring-pommel daggers were not used in Achemenid Iran. Likewise, there is no evidence that Parthians made use of ring-pommel daggers in the early Arsacid period. At that time their weapons were probably similar to those appearing in the Ustyurt and Uzboi areas, inhabited by the kindred peoples of the Arsacid Parthians. In the fourth to first centuries B.C., the tribes in the Ustyurt used daggers with antennae, crescent, and bar pommels.[5] The scabbards were attached to the thigh and to the belt. In the Trans-Caspian steppes (the Ustyurt and Uzboi area), scabbards with rounded projections or medallions did not occure.[6]

Ring-pommel daggers were widely used in China, southern Sibiria, Mongolia and the Altai

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[5]Yusupov (1986, 51), Zuev and Ismagil (1996), Zuev and Ismagilov (1994). Sometimes the double voluted pommel (similar to the antennae type) appeared (Brentjes 1996: 27).

[6]Except for one item, see: Yusupov (1986: 51).

Fig. 10 Chrestion stele, Kerch (Crimea). Photo by M. J. Olbrycht

region in the middle of the 1st millennium B.C. (Olbrycht 2012, 2015: 368). Scabbards with projecting side attachments, usually in the form of disks or medallions, occured among tribes of the Pazyryk culture—they were discovered at sites like Ulandryk, Saygyulem, Yustyd and Barburgazy and others, dated to the fifth to third centuries B.C. (Brentjes 1996: 25; Brosseder 2015).

In western Central Asia, including Bactria-Sogdiana, ring-pommel daggers and swords began to occure in the second century B.C. (Olbrycht 2015: 368–369). Three daggers with ring-pommels have been discovered in graves of the Gyaur-4 necropolis in left-bank Khorasmia.

They can be dated not earlier than to the second century B.C. These daggers occured together with long swords without pommels (Yablonskii 1999: 29–30, Fig. 34, 5–7). A similar dagger (and a long sword) were found in Kelkor 2 on the Uzboi (Yusupov 1986: 150, Fig. 38, 2, 6).

The Parthians adopted ring-pommel daggers and medallion-scabbards as royal emblems in the first half of the first century B.C. at the latest. The Sasanians continued to use daggers with ring or disk pommels and elaborate lobed sheaths. There are several examples of such daggers and sheaths depicted on reliefs and on silverware of the third to fourth century A.D. (Tanabe 1993: 91).

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From Paganism to Christianity: The Cults of Mithras and Persian Martyrs in Imperial Rome

Alessandro Luciano

Abstract

The spread of mystery cults in Rome, between the first and third century AD, involved that of Persian Mithras too, as shown by his temples. The cult of Mithras was particularly attended by the soldiers who fought against Parthes. The Christian religion spread in the army as well. For example, according to Basilius of Cesarea and the other Christian writers, Forty Martyrs of Sebastia belonged to the *Legio XII Fulminata* and had been persecuted by Licinius in A.D. 320. Their relics arrived in Rome at the beginning of the fifth century, as well as many others which have been translated from Pannonia, Northern Africa and Holy Land. The aim of this paper is to analyse differences and relationships between mithraea and martyrial sanctuaries, and to show the evolution of Persian cults from Roman Age to Christian era.

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1 Introduction

The spread of mystery cults in Rome, between the first and third century A.D., involved that of Persian Mithras too, as shown by his temples.

The cult of Mithras was particularly attended by the soldiers who fought against Parthes.[1] The Christian religion spread in the army as well. For example, according to Basilius of Cesarea (A.D. 370–379) and the other Christian writers, Forty Martyrs of Sebastia belonged to the *Legio XII Fulminata*, and had been persecuted by Licinius in A.D. 320. Their relics arrived in Rome at the beginning of the fifth century, as well as many others which have been translated from Pannonia, Northern Africa and Holy Land.

The aim of this paper is to analyse differences and relationships between mithraea and martyrial sanctuaries, and to show the evolution of Persian cults from Roman Age to Christian era.

2 The Mithraea

The mithraea were hypogeal sanctuaries, with a small long room (the so-called *spelaeum*) which was flanked by benches and covered by a barrel vault. The vault was decorated as a starry sky or a cave.[2] The *spelaeum* was lit by lamps and decorated with statues, frescos, mosaics and architectural elements. We can usually find the

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[1]Ries (2013).

[2]Romagnoli (2013).

Fig. 1 The mithraea of Rome

Tauroctonia on the main niche wall, a central altar, the *fossa sanguinis* for bulls' sacrifice and some *simulacra* such as those of *Kronos*, the Sun, *Cautes* and *Cautopates*. The ritual objects and the believers' inscriptions, which have been dedicated (*ex voto*) for restoration works, were very common. Service rooms, such as the *apparatorium* (a kind of pagan sacresty), the Hall of Initiation and the so-called *caelus* (used for purifications) were common as well.

The cult of Mithras was quite popular in late-imperial Rome as shown by the archaeological sites dated from the second half of the second century to the fourth century A.D. and by Christian historical sources such as St. Jerome, Tertullian and Prudentius (Fig. 1).[3]

The mithrea of Rome, such as many others of Mediterranean area, didn't occupy natural caves but were usually set in hypogeal areas of pre-existing buildings.[4] The large Mithraeum of Caracalla's Baths (28 × 8 m) (Fig. 2), in the underground galleries, probably had a public function, as well as the Mithraeum of *Circus Maximus* which was in a large building at the Imperial *carceres*. The other sanctuaries were instead attended by small communities. They usually occupied private rooms which had been refitted, such as a cistern (Mithraeum of Marino), the courtyard of a house (Mithraeum of Barberini), and the cellar of a *domus* (Mithraeum of via Giovanni Lanza, close to a *lararium*) (Fig. 3). The Mithraeum of St. Prisca was perhaps built *ex novo*, while that of *Castra Peregrina* (A.D. 180) occupied a room of the barracks and was attended by soldiers. It was used until Late Antiquity, as shown by its restorations and enlargements in

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[3]Bianchi et al. (2004).

[4]Pavia (1999).

Fig. 2 The mithraeum in the Baths of Caracalla

the late third century and the occupation of *Castra* at least until A.D. 357. The sanctuary of *Circus Maximus* was attended until the fourth century too, because some floor bricks bear the stamps of *figlinae Domitianae*.[5]

It seems that no Roman sanctuaries had ever hosted the sacrifice of bulls, as shown by the absence of *fossae sanguinis* and the small size of the hypogeals. Only in the Baths of Caracalla, a corridor led the initiate in a room where he could lie down to be flooded by bull's blood coming from a hole in the vault (Fig. 4). It's quite possible that the openings in the ceiling at St. Clement were used in the same way (Fig. 5). In St. Prisca, however, the *fossa sanguinis* was high and tight, probably used for animals of small size. Various service rooms are attested in these mithraea such as the *apparatorium* and a presumed stable for bulls in Caracalla's Baths (Fig. 6), *apparatorium*, hall of Initiations and

caelus with basin at St. Prisca, rooms for the lessons of *Pater* at St. Clement and *apparatorium* at *Circus Maximus*. Sometimes the containers for ablutions were also found. One of them was in the floor at *Circus Maximus* and another one at the entrance of the temple of Caracalla's Baths.

Very rich paintings decorated the Mithraeum of Marino and that of Barberini, where the central *tauroctonia* was flanked by panels with scenes of Mithras' life (Fig. 7). In other cases, the relief with *tauroctonia* could be painted (*Circus Maximus*) (Fig. 8), or made of stucco (St. Prisca), and sometimes gilded (*Castra Peregrina*). The Mithraeum of St. Prisca was the most decorated with the relief of Mithras and Saturn at the main niche (Fig. 9), the statue of Kronos at the entrance, some *sectilia* (representing Mithras' head) and a lead slab (representing Sun's head). The paintings with a procession of adepts, in particular, dates to the early third century (Fig. 10). The believers identified by captions represented the seven initiatory degrees and were directed towards the banquet of alliance between Mithras and Sun. At the entrance, the niches housed the statues of Cautes and Cautopates such as at *Circus Maximus* and via Giovanni Lanza. The statues of Mithras who was born from the rock were quite common too (e.g. in St. Clement and *Castra*). The altars could be decorated as well, such as that of the Baths which was covered by snake's coils, while in St. Clement we can find a mithraic scene. The main niche of St. Prisca and the vault of St. Clement were instead covered by pumice stone (it recalled the *spelaea*), while some stars valued the St. Clement's roof.

Graffiti or epigraphs, referred to *ex voto* or ritualistic practices, were quite common and usually found at the main niche. We can see the inscription of Circus with the word '*magicas*' (Fig. 11), that of St. Prisca (a believer has a new life after the Initiation), and those of *Castra* which were made by soldiers.

At the end of the fourth century, the Roman mithrea had been destroyed, buried and often replaced by new Christian basilicas such as at *Castra* (church of Santo Stefano Rotondo) and St. Prisca (Fig. 12). In St. Clement, in particular,

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[5]Probably, many other mithraea were in Rome. According to Rodolfo Lanciani (*Passeggiate nella campagna romana*), a statue of Kronos was found in a small temple in the vineyard of Orazio Muti, near the church of St. Vitale. Another mithraeum with marble decorations was discovered in the sixteenth century between Quirinale and Viminale. Other examples are: a marble tauroctonia and a bronze slab with mithraic figures in the Vatican Museums; two sculptures of Cautes and Cautopates found near the Tiber; three votive inscriptions from a rich temple of Rome.
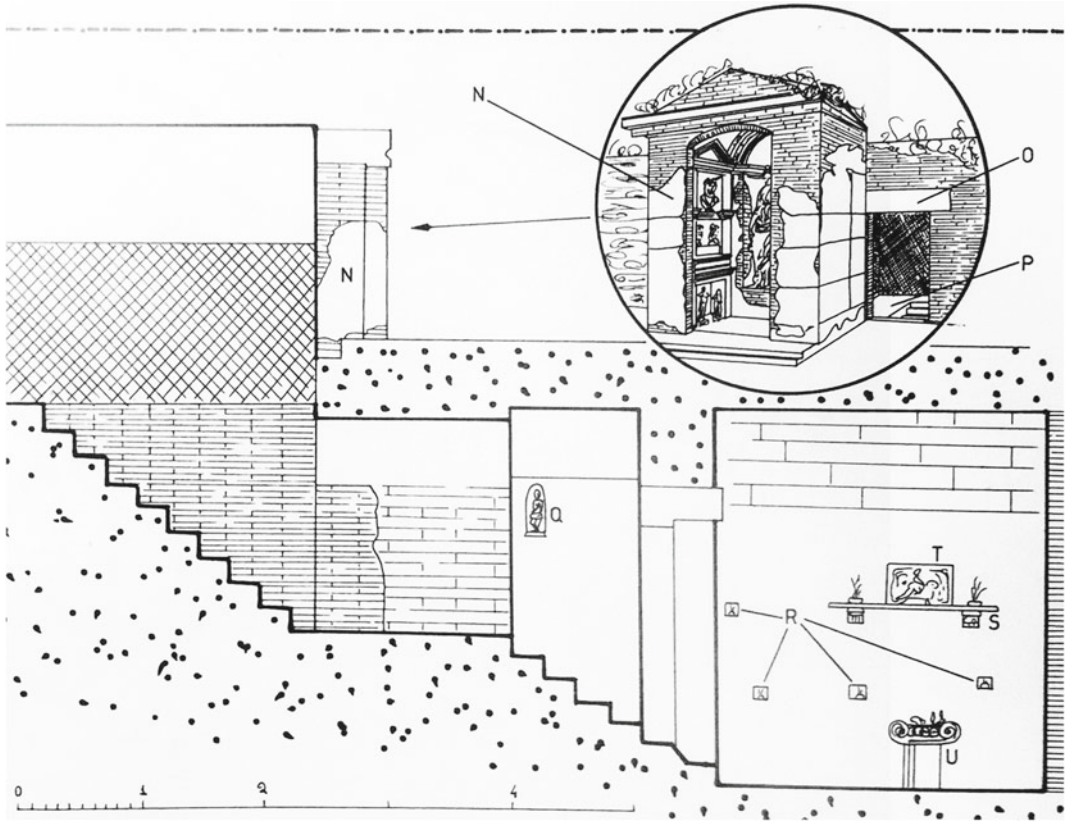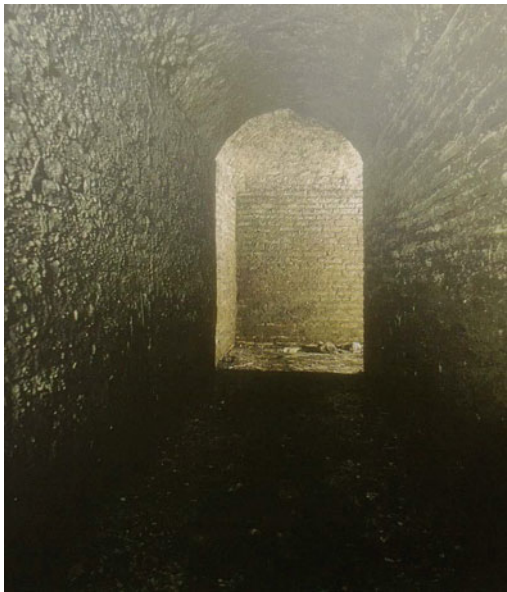
Fig. 3 The mithraeum of Via Giovanni Lanza

Fig. 4 The corridor in the Baths of Caracalla

the pagan temple was occupied by the statue of Good Shepherd.

3 Christian Cults

In spite of the obstinacy of Roman Church to preserve its venerated graves, during the fifth century many relics reached Italy from everywhere.[6] North-African holy fragments arrived especially in southern regions and in the islands brought by the exiles of Vandalic persecution. The cities of Annonarian Italy connected to the Adriatic trade and to Constantinople, however, imported mostly eastern relics such as those of St. Stephen and apostles. The *translationes* were managed by the bishops. In this way they could

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[6]Martorelli (2012), Patrucco (1991).

Fig. 5 The mithraeum of St. Clement
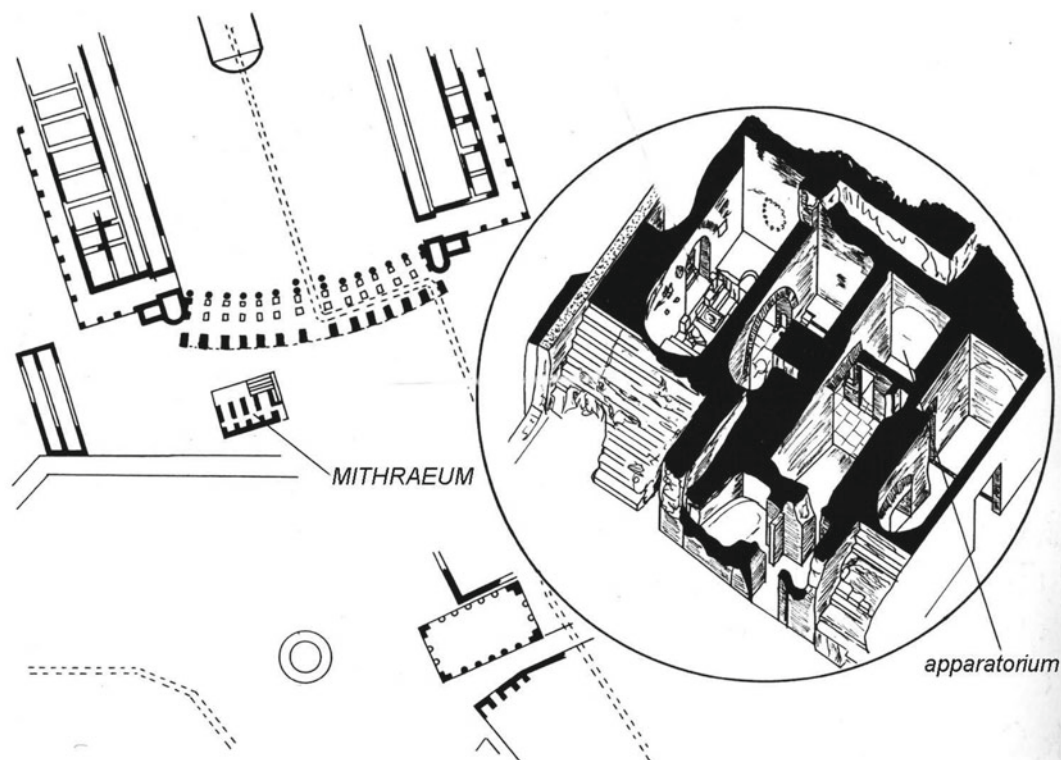
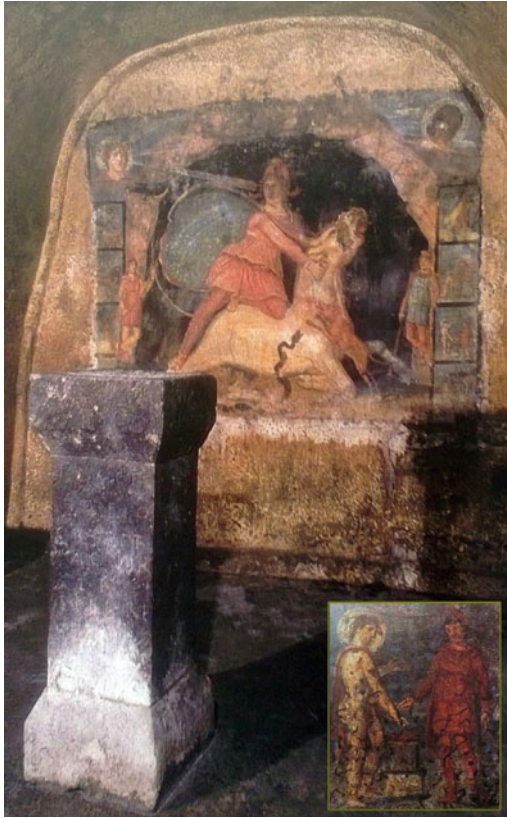**Fig. 6** The mithraeum of Caracalla's Baths and its *apparatorium*

Fig. 7 The *tauroctonia* in the mithraeum of Marino, with the alliance of Sun and Mithras

show their influence. The arrival of holy fragments was considered as a miraculous event and celebrated as an Imperial *adventus*. The scene which is represented on a ivory tablet from the Treasure of Treviri, dating back to the fifth century, is very interesting.[7] A reliquary is carried by two bishops standing on a cart which is preceded by a procession. The emperor and his wife are in the first row while a lot of rejoicing people are attending around. The procession is going to a church under construction, since the translated relics were usually used to consecrate the altars.

The foreign relics, which were venerated in Rome during the Late Antiquity, belonged to Greek Martyrs on via Ardeatina, African Panfilus in the homonymous catacomb, Pannonian Pollio in Pontian's cemetery, Siscia's bishop Quirinus

at St. Sebastian, protomartyr Stephen on via Latina, the Forty martyrs of Sebastia at *Duas Lauros* and the Persian saints (Abdon, Sennen and Milix) in Pontian's cemetery (Fig. 13).[8] The martyrs who died far away from Rome were considered foreign. In fact, as recalled by Damasus, the non-italic saints who had been executed in the *Urbs* acquired its citizenship (ED, 188–189, n. 46, 3, 195, n. 48, 142–143, n. 20, 4–6). Abdon, Sennen and Milix belonged to this group.[9]

The relics were usually placed in catacombs inside cubicles or galleries.[10] The *locus depositionis* was often a small reliquary since the relics were usually *ex contactu* or fragmented. They had been arranged in a different way and those of Forty martyrs, remembered by the early medieval *Itineraria*, were deposed in a small box in the wall of a gallery (Fig. 14). The *loculi* or *arcosolia* of Abdon and Sennen, Persian slaves martyrized in Rome under Emperor Decius (A.D. 251), according to the *Passio* (*Act. Sanct., Iul.* 7, 148), and the grave of Milix (known in the *Notitia Ecclesiarum*) were instead in two different cubicles.[11]

The *depositions* were usually followed by embellishment building works: sculptural furnishings, paintings representing the saints, enlargement of the burial spaces, arrangement of *itinera* and memorial inscriptions.[12] The renovations, under Pope Damasus in particular, were promoted by ecclesiastical hierarchies. On the

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[7]Chavarria Arnau (2007).

[8]Nieddu (2008), Bonfiglio (2013).

[9]The sanctuaries of foreign martyrs were even more numerous. Collective and anonymous cults attested in Medieval Itineraries, in fact, were probably related to non-Roman saints. That of Thirty martyrs, in Marcellinus and Peter's catacomb, was probably located in a cubicle, which was occupied by a masonry structure equipped with a funnel-shaped hole.

[10]Luciano (2013), Nicolai et al. (1998).

[11]Ricciardi (2006), Palombi (2008). According to a different hypothesis, Sts. Abdon and Sennen, remembered by *Depositio Martyrum* 'ad Ursum Pileatum' (VZ 2, 21), had been buried in the subdial cemetery, where their basilica was built. According to this hypothesis, the frescoed *cubiculum* with their representations was used as a baptistery since its construction.

[12]Spera (2012).

Fig. 8 The relief with tauroctonia in the *Circus Maximus*

transenna which valued the Abdon and Sennen's grave, for example, an inscription recalled the works of an unknown priest (*ICUR* II 4530) (Fig. 15).

In other cases, the confessional spaces were decorated by frescoes, usually dated between sixth and seventh century. We can see the painting drawn up to the wall of Forty Martyrs where Marcellinus and Peter welcomed the arrival of the new Armenian saints (Fig. 16)[13]; their reliquary was pinpointed by the word '*scrinium*' (Fig. 17). In the same hypogeal necropolis, another painting represented Milix and Pumenio flanking a gemmated cross (Fig. 18). The underlying *fenestella confessionis* was opened on the hypothetical funerary room of Milix.

The sanctuary of Sts. Abdon and Sennen, that became a baptistery after a flood, was decorated by frescos too (Fig. 19). They were probably sponsored by *Gaudiosus* who was remembered by two inscriptions, one of which reported: '*de donis d(ei) et s(an)c(to)r(u)m Abdon et S[ennen G]audiosus [fecit]*' (*ICUR* II 4532c). On the southern wall, Christ offers the martyrial crown

to Abdon e Sennen, between *Milix* e *Bicentius* (Fig. 20).

The baptistery was accessible by a stair which came from a funerary enclosure. Inside there was an apsed mausoleum (end of fourth to beginning of the fifth century), probably just the '*ecclesia magna*' of Abdon and Sennen, remembered by the early medieval *Notitia Ecclesiarum* (VZ 2, 92) (Fig. 21).[14] The church was probably built to house the relics which had been translated from the catacomb after the flood.

The sanctuaries often became suitable for liturgical celebrations. Until sixth to seventh century, many suburban churches were dedicated to non-Roman saints and probably consecrated with their relics.[15] It's quite possible that St. Christina (it was near the church of St. Paul according to the *Notitia Ecclesiarum*), was dedicated to the martyr of Tyre or just to the Persian one who was executed around the half of sixth century. A basilica on via Cornelia (at the thirteenth mile) near Boccea, was dedicated to the presumed Persian martyrs Marius, Martha,

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[13]Giuliani (2012).
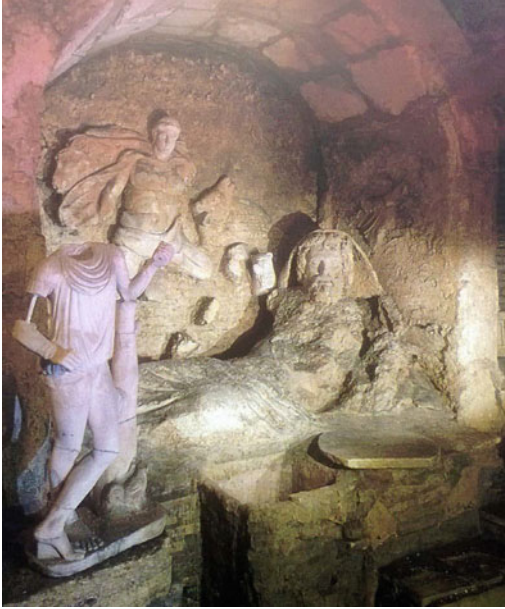
[14]Barbini (2001).
[15]Spera (2002).

Fig. 9 The relief with Mithras and Saturn in St. Prisca

Audifax and *Abbacuc*, who died in Rome.[16] The block of altar (sixth century) found in the church was equipped with a *fenestella confessionis* and decorated by the relief of two saints flanking the Cross, probably Sts. Peter and Paul. The confessional area was valued by a pluteus (fourth to fifth century), which contained a reference to one of the saints: '[—] *vixit*/————?' (Fig. 22). It's not a coincidence that the marble slab had a scaly decoration quite similar to the damasian relief of Sts. Abdon and Sennen.

Since the early fifth century the consecration of churches with translated relics (they were deposed in niches underlying the altars) became very common also outside Rome.[17] The relics of Forty Martyrs of Sebastia, for example, were venerated in the basilica *ad Coetum sanctorum* (Brescia) which was founded by bishop Gaudentius. We know that the ossuary of Armenian saints was divided by Basilius and many relics had been sent as a gift to all Greek churches (Bas. Caes., *In quadr. mart. Seb.* 8).

4 From Mithraism to Christianity

Although Christianity replaced Mithraism, there are some similarities between them, as often has been pointed out. The relationships are iconographical, architectural and ritual.[18]

The pagan myth of Cupid and Psyche, for example, alluded to the immortality and redemption and was appreciated by both religions. In the *fractio panis* which recalled the Eucharistic banquet, however, the number of diners is seven, as well as the mithraic initiatory degrees. Most importantly for this paper, in the representations of the Epiphany, the Magi are dressed as Mithras, with Persian clothes. We can see the comparisons between the painting from the catacomb of Domitilla and the representation of Mithras in the temple of Marino and between the Magi of Ludovisi sacophagus and Cautopates in *Circus Maximus* (Figs. 23 and 24). In the tauroctoniae, Sun, Mithras and the crow are often represented together as a ternary group reminiscent of the Trinity, while Christ himself is sometimes represented like the first one. About the architectural similarities, some Christian rooms recall Mithraic temples, such as the Greek Chapel in the catacomb of Priscilla, marked by a long plan, central altar, side benches and a niche on the main wall. The importance of the water for purifications and the hermetic meaning of the words 'Christ' and 'Mithras', are common elements too.

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[16]Nicolai (1988).

[17]Luciano (2014).

[18]Testini (2009).

Fig. 10 The painted procession of adepts in St. Prisca
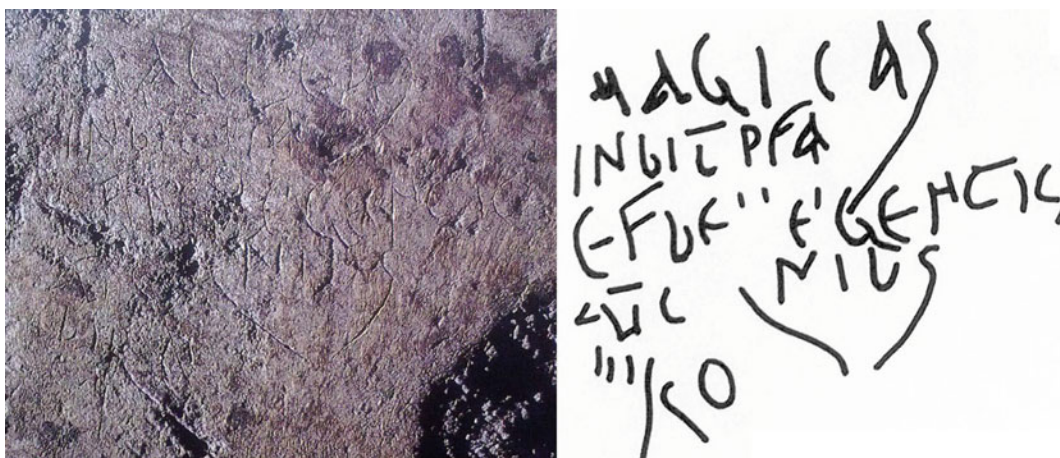

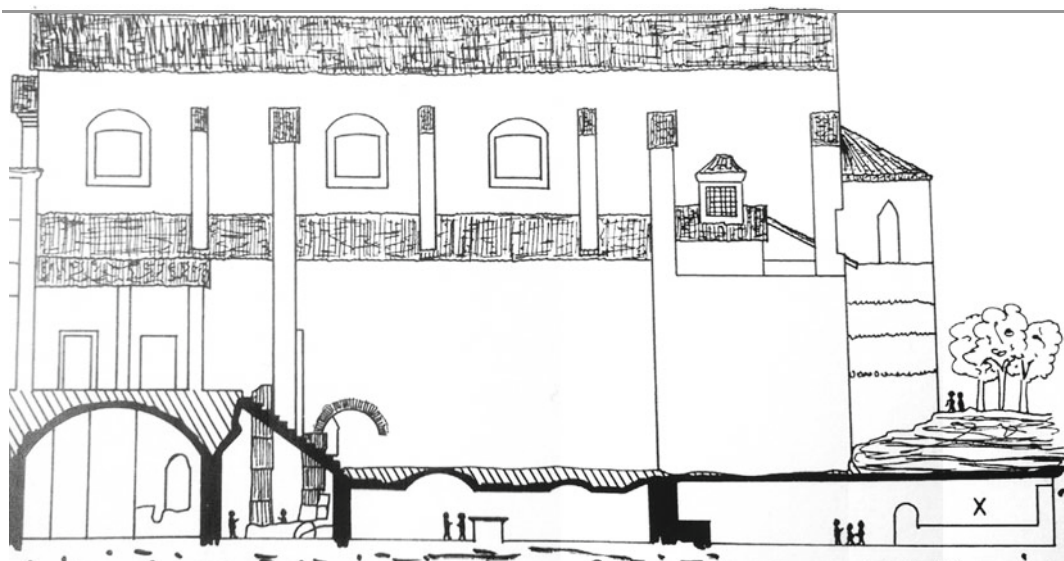**Fig. 11** The inscription with the word '*magicas*' in *Circus Maximus*

Fig. 12 The church of St. Prisca above the Roman mithraeum

5 Conclusions

Mithraism took root especially in military contexts. At Dura Europos, for example, among sanctuaries of different religions the Persian one was partially built against the city walls. Just the movements of soldiers as well as of merchants led to the penetration of foreign cults within Roman Empire. It's not a coincidence that the mihraea widespread in portual cities and in military contexts such as in the *Castra Peregrina*. The temple of Capua, for example, was located along via *Campana* which was visited by soldiers and traders who landed at the port of *Puteoli* from the East. The mithraic sanctuaries of Ostia were even more than seventeen. Among them, that of *Horrea Hortensius* belonged to the captain of Misenum fleet.

Even the cult of Persian martyrs spread in a suburban area which was easily accessible by foreign communities. The catacomb of Pontian was sanctified by the relics of Abdon, Sennen and Milix and was on the second mile of via *Portuensis*, just on the road to *Portus* (harbor of Rome) (Fig. 13).[19] The urban section of via *Portuensis* ran through the *Regio XIV-Transtiberim* between the Tiber and the areas of *Horti Caesaris* and *Naumachia Augusti*.[20] This district was the only one on the right of the Tiber to be enclosed in the Aurelian walls. It was densely populated by artisans, eastern merchants and slaves who worked at the warehouses and in port activities.[21] The presence of foreign communities in this area led to the birth of several sanctuaries. They were dedicated to oriental and syncretistic cults and used until the late-imperial Age. We can see the four synagogues and, between the Tiber and Janiculum, the sanctuaries of *Dea Syria*, Bel and other palmirene Gods, and the so-called Syriac sanctuary (fourth century), at the ancient temple of *Jupiter Heliopolitanus*.[22] According to the sculptural and epigraphic finds, these sanctuaries, as well as the mithraic ones, were associated to the cult of *Sol*. At the Syriac sanctuary, in particular, the statue of a male God wrapped in serpent's coils, a decorated base with Sun, Moon and the bull which was reused and dedicated to 'Doryphorus pater' (*CIL* VI 837) have been found.

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[19]The church of St. Christina was probably built on the same via.

[20]Martorelli (2006).

[21]A Syriac community was also mentioned by Juvenal (*Sat.* 3.62-5).

[22]Ensoli (2004), Equini (2001), Calzini Gysens (1996).

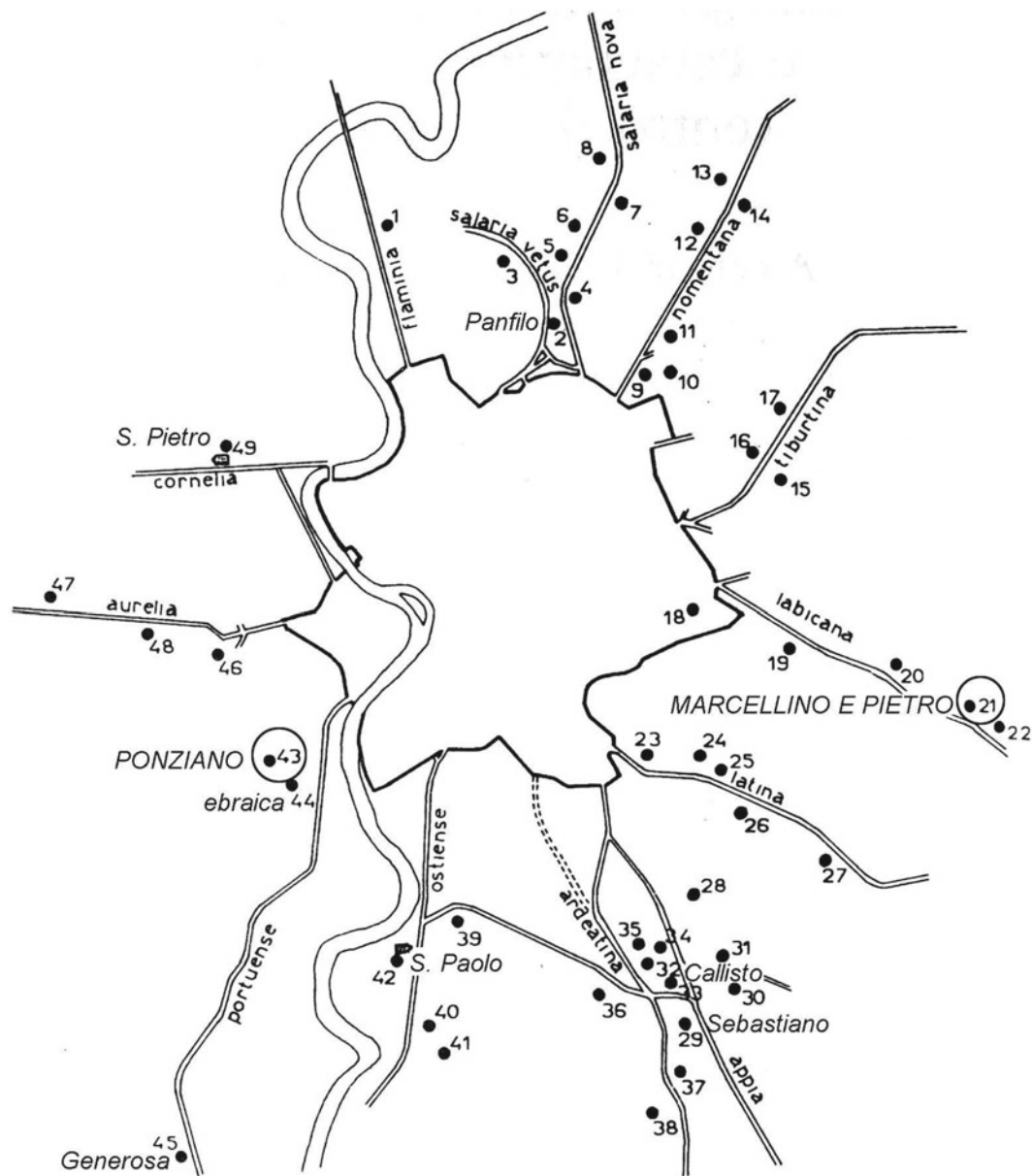**Fig. 13** The catacombs of Rome with foreign sanctuaries

Fig. 14 The *loculus* of Forty martyrs in the catacomb ad *Duas Lauros*

Fig. 15 The damasian transenna of Sts. Abdon and Sennen

Fig. 16 The painting with the Forty martyrs of Sebastia

In Christian Era, the name of Pontian's cemetery—'*ad Ursum Pileatum*'—probably meant 'the cemetery at the bear with the Phrygian cap'. It's clear that this toponym recalled the catacomb's saints who have a Persian look in the *coronatio*, with tunic, beard and above all a Phrygian cap. From the same cemetery, a ceramic fragment dated to the fifth century was decorated by a bearded man in prayer wearing a Persian cloak, probably Abdon. The comparison between the images of Abdon and Sennen and that of Mithras is clear. Probably the perception that believers had of the typical Persian person was mediated by Mithraic tradition. The author of the *Passio*, perhaps to show the greater importance of Christianity than Mithraism, remembers that the martyrs refused to venerate just the Sun and had been killed for this.[23] Their bodies had been thrown just in front of the solar statue by Romans. The toponym '*Ursum*' is probably related to the *Passio*, because it's remembered that Abdon and Sennen tamed some wild bears during their execution in the
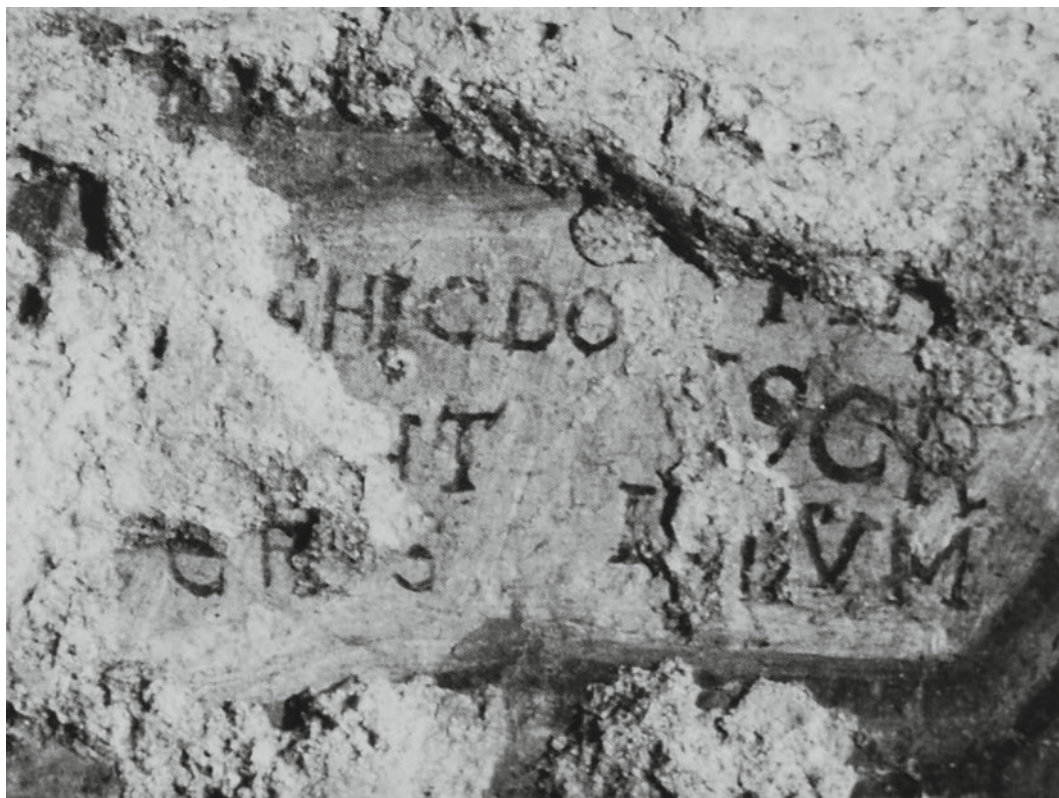
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[23]Bartolini (2013).

Fig. 17 The inscription with the word '*scrinium*'

amphitheatre.[24] This is the reason why in the later iconographical tradition they are usually dressed with a fur coat (Fig. 25).

Who were the believers of Mithras and later of Persian martyrs? Although the cult of the pagan God was deeply rooted in Roman Empire, it's likely that some foreign communities followed him in a special way. At the niche of Mithraeum Barberini, for example, the dedication of the early third century belonged just to a Persian believer which had financed a base: '*Yperanthes offered as a gift a base to invictus god Mithra*'.

Unfortunately, the graffiti in the catacomb of Pontian are quite later and dedicated in a special way to St. Pollio. We can refer as a comparison to the case of St. Quirinus, martyr and bishop of Pannonia. His sanctuary was mostly frequented by Pannonians as shown by the inscription of *Maximilla* and *Numita* on their sarcophagus (*ICUR* V 13355). The venerated building was preexisting since the cult was probably promoted by private believers, as shown by the Quirinus'memorial inscription (*ICUR* V 13276).

At the beginning of Christian Era, since Roman Church hadn't the need to increase its sanctoral, the *depositiones* of new relics in suburban cemeteries was therefore related just to the presence of foreign communities along the via *Portuensis*. They are still documented in Late Antiquity by some funerary epigraphs from the catacomb of Generosa (*ICUR* II 4759–4761, 4764–4765) and the area of Pozzo Pantaleo, and by the presence of the *Coemeterium Iudaicum*. The Church of St. Passera, originally dedicated to the Egyptian saints Cyrus and John and decorated by paintings with eastern saints, was built on the same street around the fifth to sixth

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[24]Gregory the Great (*Dial.* 3.11.1-3) remembered that Cerbonius, bishop of *Populonium*, also tamed a bear, just on Via *Portuensis* (eighth mile), under Totila.

Fig. 18 The painting with Milix and Pumenio

Fig. 19 The so-called *baptisterium* in the catacomb of Pontian

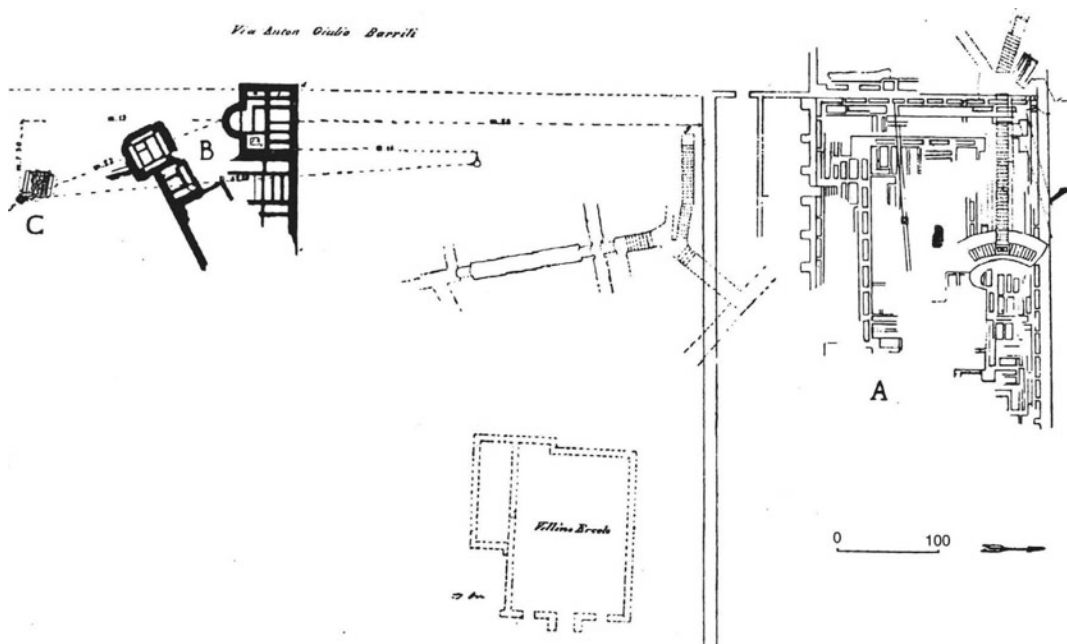**Fig. 20** The coronatio of Sts. Abdon and Sennen

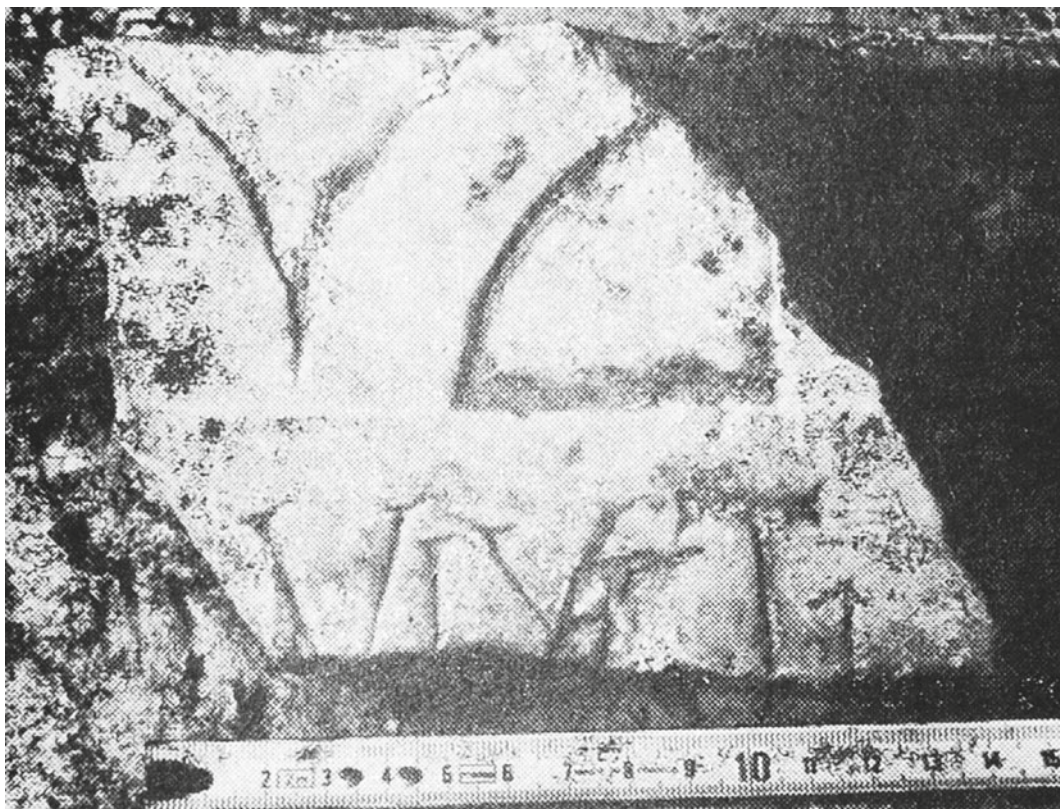**Fig. 21** The church of Abdon and Sennen in Pontian's cemetery

Fig. 22 The transenna from the sanctuary of Sts. Marius, Martha, *Audifax* and *Abbacuc*

Fig. 23 Comparison between the painting of Domitilla and that of Mithras in the temple of Marino

Fig. 24 Comparison between the Magi of Ludovisi sacophagus and Cautopates in *Circus Maximus*

Fig. 25 Abdon and Sennen painted by Huguet Jaume (fifteenth century)

century. A suburban settlement, known as *op-pidum*, is moreover remembered by the *Marty-rologium Hieronymianum* (*Act. Sanct., Nov.* 2.2.661) and was near the tomb of St. Felix. The *baptisterium* of Pontian's catacomb was probably built for its inhabitants.

In conclusion, both the cults of Mithras and oriental saints, especially Persians, were managed and followed by small national communities well-established in Rome. The religions change, traditions go on.

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Archaeological Study of Khorbas Cave on Qeshm Island

Taher Ghasimi and Akbar Pirmoradi

Abstract

The cave of Khorbas is one of outstanding important examples of rock architecture in the Persian Gulf region which is located southwest of town of Qeshm. In present article we shall describe the structure of the site and provide a geological overview of the area, as well. Considering the features of the site, existence of various historic sites all around the area and also the fact that several rock chamber tombs have been discovered on the island, it is highly probable that the cave belongs to historical era (Parthian or most probably Sasanian era). Based on its form and location, the Khorbas cave could have served various functions including for residential, defensive or religious purposes. Here we shall also provide a comparative study of the rock architecture of the site with other examples discovered across Iran. Finally, we have made some proposals regarding further studies on the site and protective measures that could help preserve it.

1 Introduction

The Qeshm Island has played a central role in cultural communications between northern and southern coasts of the Persian Gulf throughout history. The cave of Khorbas is among significant cultural remains of historical era of the island about which there are reports in a number of texts. One very important example of these reports could be found in archeological surveys of Qeshm Island in 2005 (Khosrozadeh 2006). A survey was also conducted in autumn 2010 during which this site was studied again. During the latter field survey, the geological context was studied as well. However, extracting any archeological findings had become impossible due to destruction of the mountain slopes in front of the site. In general, the structural features of the site and comparing it with other sites discovered on the island, were taken into account for description and relative dating of the Khorbas cave.

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2 Background of Archeological Studies and Surveys on Qeshm Island

First and second seasons of archeological surveys on the Island of Qeshm were conducted in 1969 and 1970 led by Javad Babak during which the cave of Khorbas and the sites around it were also studied and some potsherds of Parthian era were found near the cave. Babak Rad believes that Khorbas has been a religious site for Mithraism belonging tothe Parthian era (Babak Rad 1971, 1979). Ehsan Yaghmaei conducted and excavation and study on the Portuguese fortification in 2000 (Yaghmaei 2001). In 2005 eastern and southeastern parts of the island were studied by Alireza Khosrozadeh during which the cave of Khorbas and sites around it were also studied (Khosrozadeh 2006). In 2008, some areas of the Qeshm Island were surveyed by Abdukreza Dashtizadeh (Dashtizadeh 2010). The latest archeological study on the Qeshm Island was conducted by cultural heritage office of Qeshm Island's organization of free trade (Dashtizadeh 2010).

3 Description of the Studied Site

The cave o Khorbas is on the foothills of a short rocky mountain, about 10 km southwest of Qeshm and 5 km east of Ramchah village. Based on geological studies the cave dates back to Cenozoic period and the deposited layers of its terrace include two layers of sandstone and marl (Haqqipoor 2005) (Figs. 1 and 2). Khorbas is a natural cave through which water has created narrow passages. Later on these passages have been expanded by humans residing in the cave. The Khorbas cave is comprised of two floors. The lower part is the section created by nature and includes a four-meter-long entrance and three linked, oval shaped dugouts. The lower part is connected to the upper one by a sloped corridor with 14 steps carved along it (it is worth noting that these steps are recently made to
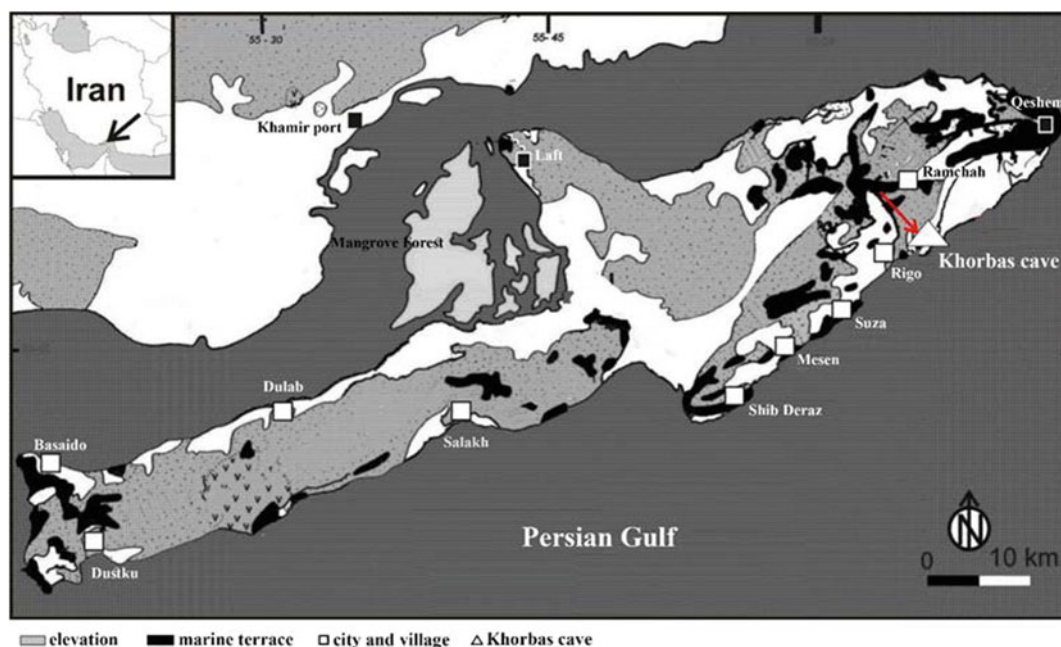

Fig. 1 Geographical map of Qeshm Island showing location of the cave of Khorbas (provided by Abdulreza Dashtizadeh with some modifications)

Fig. 2 A view of the Khorbas caves

facilitate visitors' access to the upper floor). The second floor includes a central rectangular room (5.30 × 4 × 2.90 m) which is connected to more small rooms (Figs. 3 and 4). Several shelves with arched ceilings are dug into walls of the central room. The ceiling of the room itself is rather flat but where it leads to trap doors created for lighting the ceiling turns into springing arch (Fig. 5). The floor is sloped down towards the trap doors and the cliff. The ceiling is damaged in some parts and has cracks which have been inflicted by tectonic pressures such as quakes. The lower floor of the cave has been created inside the marl layer while the upper floor bears
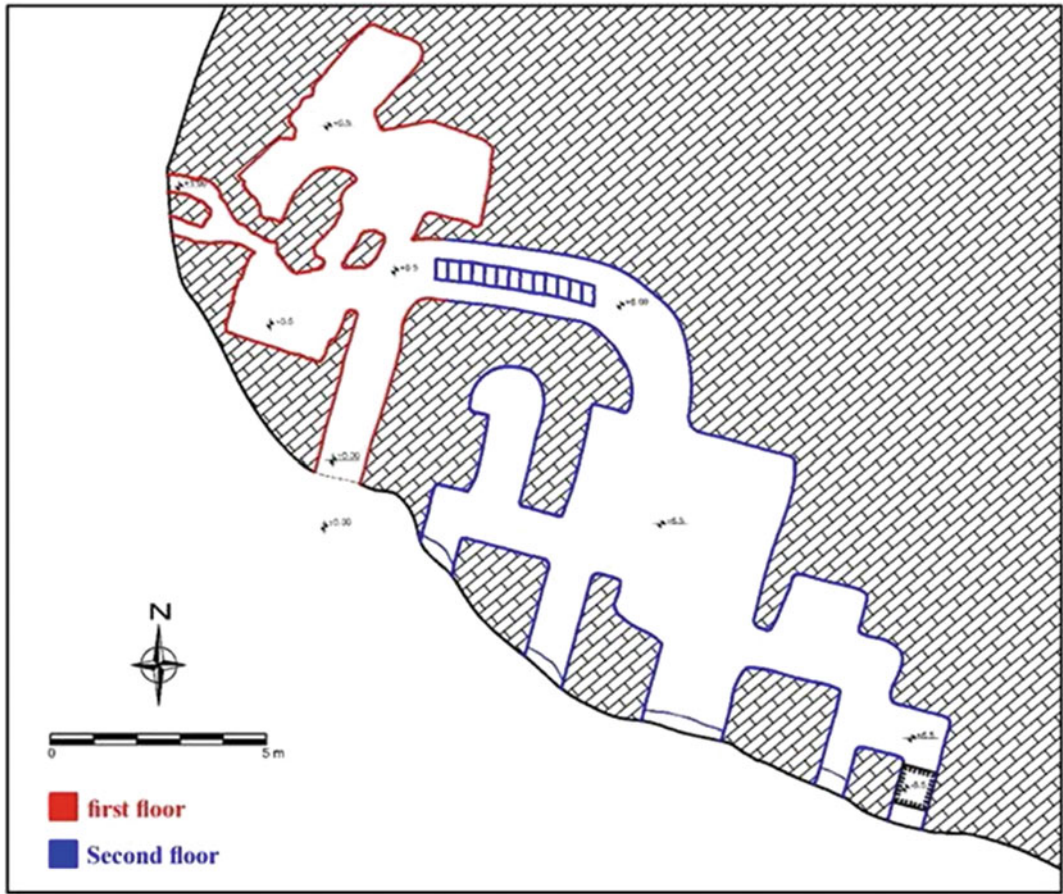

Fig. 3 Plan of the interior of the Khorbas cave obtained from archive of cultural Heritage Office of Hormozgan province

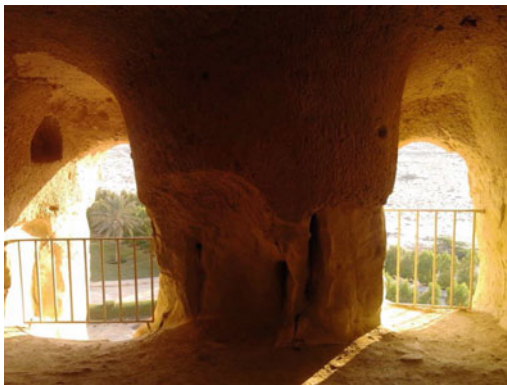**Fig. 4** The corridor connecting the floors of the cave

Fig. 5 Trap doors built for lighting and shelves created on one of the trap doors of the central room

sigs of both layers so that from the floor to up to 1 m of the walls are made in the marl layer and there on up to ceiling is built in the sandstone layer (the room is 2.9 m high) (Fig. 6).[1] At the

back of the eastern room a vertical corridor is dug which has probably been used as an exit point for times of emergency (Fig. 7). Above the main entrance of the cave there is a cavity similar to a trap door which is a separate space and unrelated to main architectural features of the cave. This cavity is created high above the floor (about six meters) and is not accessible without proper rock climbing equipment. The residents of the cave had probably meant to connect this space to other parts of the cave but, for unknown reasons have left it unfinished. There are rather huge blocks of stone in front of the Khorbas cave which have probably fallen apart from the mountain in the past due to natural causes (erosion, weathering, earthquake etc.) on one of these blocks there are two shelf-like dents one of which is similar, in form and shape, to shelves inside the cave (Fig. 8). There is also a series of corridors (including four entrances which are connected to one another) dug in southeastern part of the cave. These corridors are made in recent years and their walls bear some carvings and paintings such as an image of Noah's ark and human faces. These carvings, just like the corridors, not only lack any sort of archeological value but also are some sort of damage to the main features of the ancient site (Fig. 9).

Noting existence of numerous historical sites (of Parthian and Sasanian eras) around the cave which have been identified during archeological surveys conducted by Alireza Khosrozadeh in 2005 (Khosrozadeh 2006) and also discovery of several ossuary near villages of Suza, Gambrun and Messen (Dashtizadeh and Pirmoradi 2010; Moradi 2011; Ghasimi and Pirmoradi 2011), also considering architectural similarities between Khorbas and the cave of Karaftou in Kurdistan province (based on architectural style of the

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[1]The Khorbas cave has suffered from differential weathering and differential erosion as a result of which less resistant stones are destroyed and eroded faster while more resistant ones are weathered and eroded with a

slower pace (Hefferan and O'Brien 2010). In general, different stones and deposited layers vary in their resistance against erosion and weathering. Erosive processes decompose stones in different ways based on their structure and material. Soft and spongy stones are more likely to get eroded than harder stones therefore soft stones account for creation of puddles and holes whereas hard stones create bumps and humps along the path of erosion.
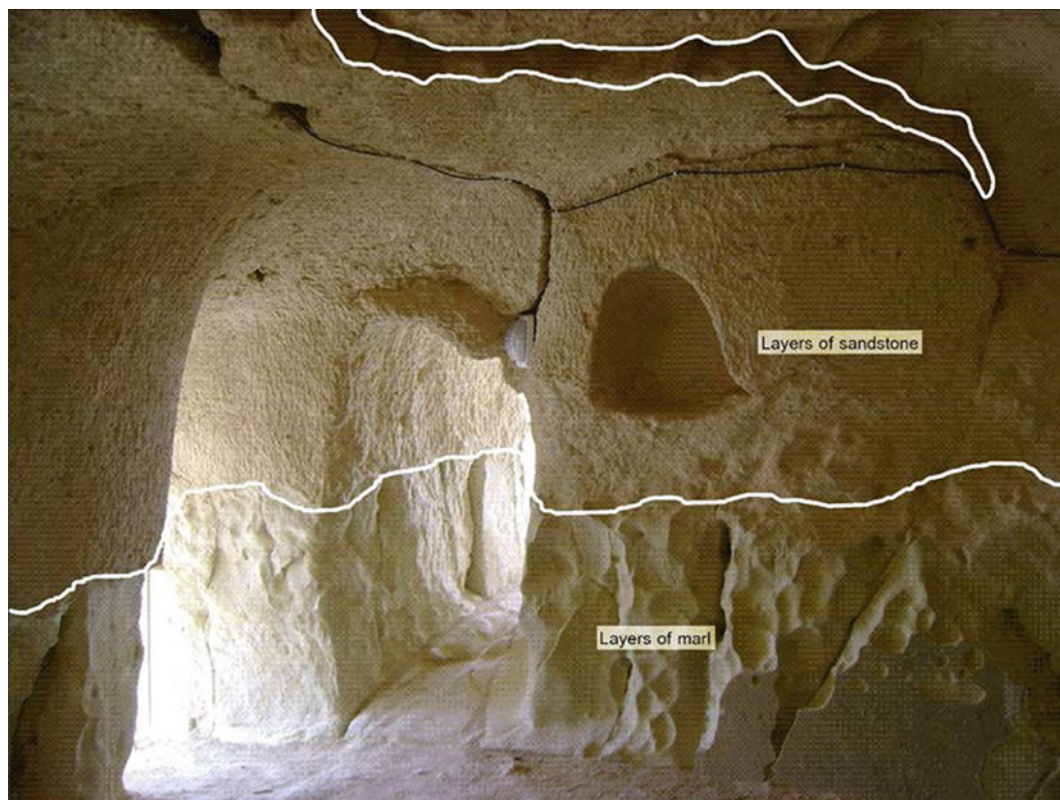
Fig. 6 Layers of marl, and sandstone in the interior of the cave

Karaftou cave and existence of a Greek inscription along with other archeological evidence Karaftu belongs to Selucid-Parthian or Sasanian era: Ghasimi 2006, Hamzelu and Mireskandari 2002) it is highly likely that Khorbas cave is a structure of the historical era (Figs. 10, 11 and 12).

Among important examples of rock-cut building discovered in southern Iran, we can mention hand-made caves of Sadermand in Jask county of Hormozgan province (Afsar 2005). Two rock-cut grave temples of Parthian-Palmyra era on Khark island (Eghtedari 1996; Harsini 1996; Afshar Sistani 1997) and rock-cut tombs of Layl valley in Siraf port (Eghtedari 1996) all of which seem to have been used during historical era just like cave of Khorbas.

4 Protective and Research Proposals

We recommend that prior to any operation, a comprehensive archeological study (including sounding, excavation, stratigraphy etc.) and protective plan (in order to prevent human or

Fig. 7 The vertical corridor at the back of the eastern room (the first image is a downward view and the second one shows an upward view)

natural damage to the site) be prepared for the Khorbas cave other sites around it. Installations of the water reservoir and also the wall built near the edge of the cliff should be removed and instead of them a wall of very light materials should be constructed harmonious with the appearance and context in which the cave exists so that the less pressure may be imposed on the edge of the cliff and the stone layer beneath it which in turn could lengthen the life of the cave.

Fig. 8 Shelf-like dent carved on a block of stone

Fig. 9 Recently made corridors

Fig. 10 Ossuary of Chuch and Suza discovered in Qeshm Island

Fig. 11 Ossuary discovered in Mesen in Qeshm Island

It is also necessary that no sort of greenbelt, or installations that need water are created near the cliff. The steps of the corridor connecting the two floors of the cave should be given a wooden cover to prevent erosion of the floor (Figs. 13 and 14).
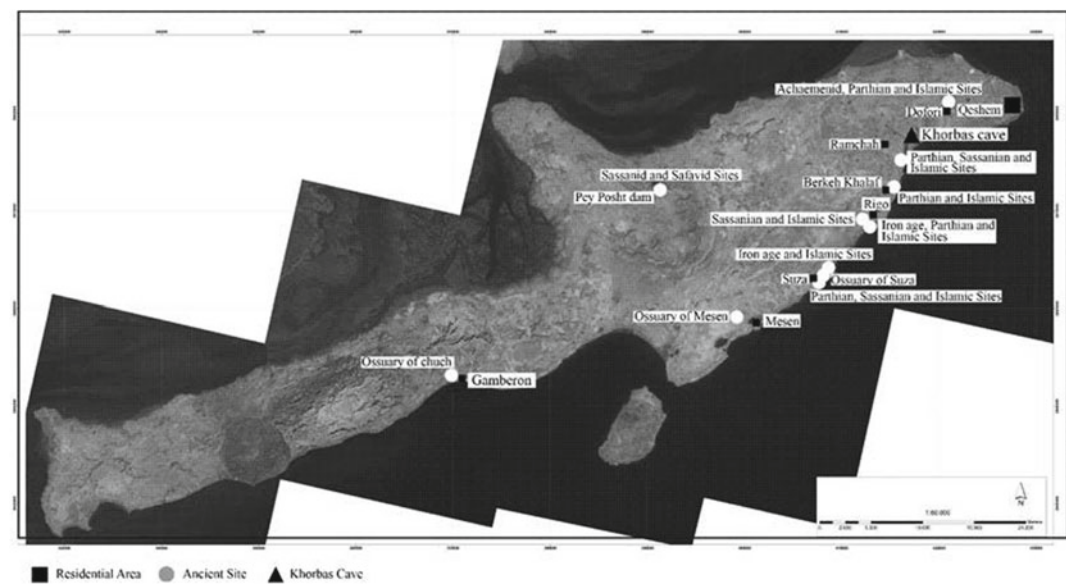
Fig. 12 Satellite image of Khorbas cave and other sites identified during recent surveys by Khosrowzadeh in 2006 (map provided by Alireza khosrowzadeh with some modifications)

Fig. 13 Image of installations and structures made around the khorbas cave not taking into consideration the damage they could make

Fig. 14 Ossuary discovered in Mesen on Qeshm Island

5 Conclusion

Using archeological evidence and comparisons with other historical sites near the cave as well as similar structures elsewhere in country can only contribute to a relative dating of the Khorbas cave. However, conducting archeological excavations inside the cave and in areas around it can provide us with valuable information for absolute dating of the cave cultural chronology of the site. Utilizing interdisciplinary methods in future studies could also lead to more significant results.

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Brief Note on the Archaeological Investigation of Parthian Remains of Khorbas Site, Qeshm Island

Sirvan Mohammadi Ghasrian

Abstract

Korbas Archaeological site with a measurement around 20 ha considered as one of the largest archaeological sites of Qeshm island ever known. Even the site including 13 separate site belonging to the Lower Paleolithic to recent Islamic period, but historic remain of the site dating to the Parthian period can be considered as one of the main portion of archaeological remains in Khorbas. Parthian sites of Khorbas include one cemetery and one residential area? near cemetery. Our preliminary investigation shows that there is an obvious similarity between potteries and the structure of graves of Khorbas and other Parthian period site not only in the Qeshm Island but throughout Iranian coastal areas.

1 Introduction

The role of southern Iranian costal regions and especially island area regarding to the historic and Islamic period studies is obvious. It's become clear now that the Iranian costal area, like Siraf, Hormuz and Qeshm Islands were leading ports during historic and Islamic periods.

Among Persian Gulf Island, the Qeshm has a key role in these studies. During last archaeological surveys by both Iranian and foreigner researchers many sites especially historic and Islamic period have been reported which reinforced this assumption that Qeshm Island is a leading port during historic and Islamic periods. One of the main site of Qeshm Island reported before, Is Khorbas. Khorbas archaeological sites with a measurement of near 20 ha considered as one of the largest archaeological sites of Qeshm Island ever known. The site is located 10 km south-west of nowadays Qeshm city. Archaeological surveys show that the sites including 13 separated archaeological sites dating to the lower Paleolithic to more recent Islamic period. These sites are: small Paleolithic remain near Persian Gulf coastline, Parthian cemetery and residential area? Historical hand carved cave, 3 Islamic cemetery, Ab Anbar, canal to carry water to Ab Anbar, huge detour dam, shah Shahid shrine, 2 Separat mason buildings, one Islamic residential area with mason architecture. Even Khorbas comprising archaeological sites from different periods, but what have been investigated in this paper are Parthian period sites. These include one Parthian cemetery and residential area? beside it. Our preliminary observation based on surface survey and excavation demonstrate that the apparent measurement of Parthian remain is

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around 10 ha which cannot be considered as an ordinary rural site. After this short introduction the Parthian remain in Khorbas site will describe briefly.

2 Geographical Position

Qeshm Island considered as a largest island of Persian Gulf (122 km long, 18 km wide on average, 1445 km^2) located about 22 km south of Bandar-e Abbas (Potts 2004). Its widest point located at the center of the island which span 40 km and its narrowest point span around 10 km. Qeshm city located at the eastern point of the island and is 22 km far from Bandar-e Abbas. Khorba site (N: 26 54 60, E: 56 10 13) is located 10 km south-west of Qeshm city. The best access

way to the site is an asphalt road (jade-y-e saheli) to the Ramchah village. Unfortunately the mentioned road goes exactly through the site and lead terrible damages to the site. Also other human interference like agriculture and constructions destroyed some parts of site completely. Khorbas is a name of the cave and mountain that all archaeological sites located around them which including around 13 archaeological sites called the same. The main portion of them located in the front of Khorbas cave beginning in the slope of Khorbas Mountain and extended to the shore line. Except the large portion of the site which located in the front of the cave and mountain, some of the site like Parthian cemetery located behind the Khorbas cave and beside Shah Shahid shrine (Mohammadi Ghasrian 2016) (Figs. 1, 2, 3, 4 and 5).

Fig. 1 Location of Khorbas on the map of Iran (after Khosrowzadeh 2011)
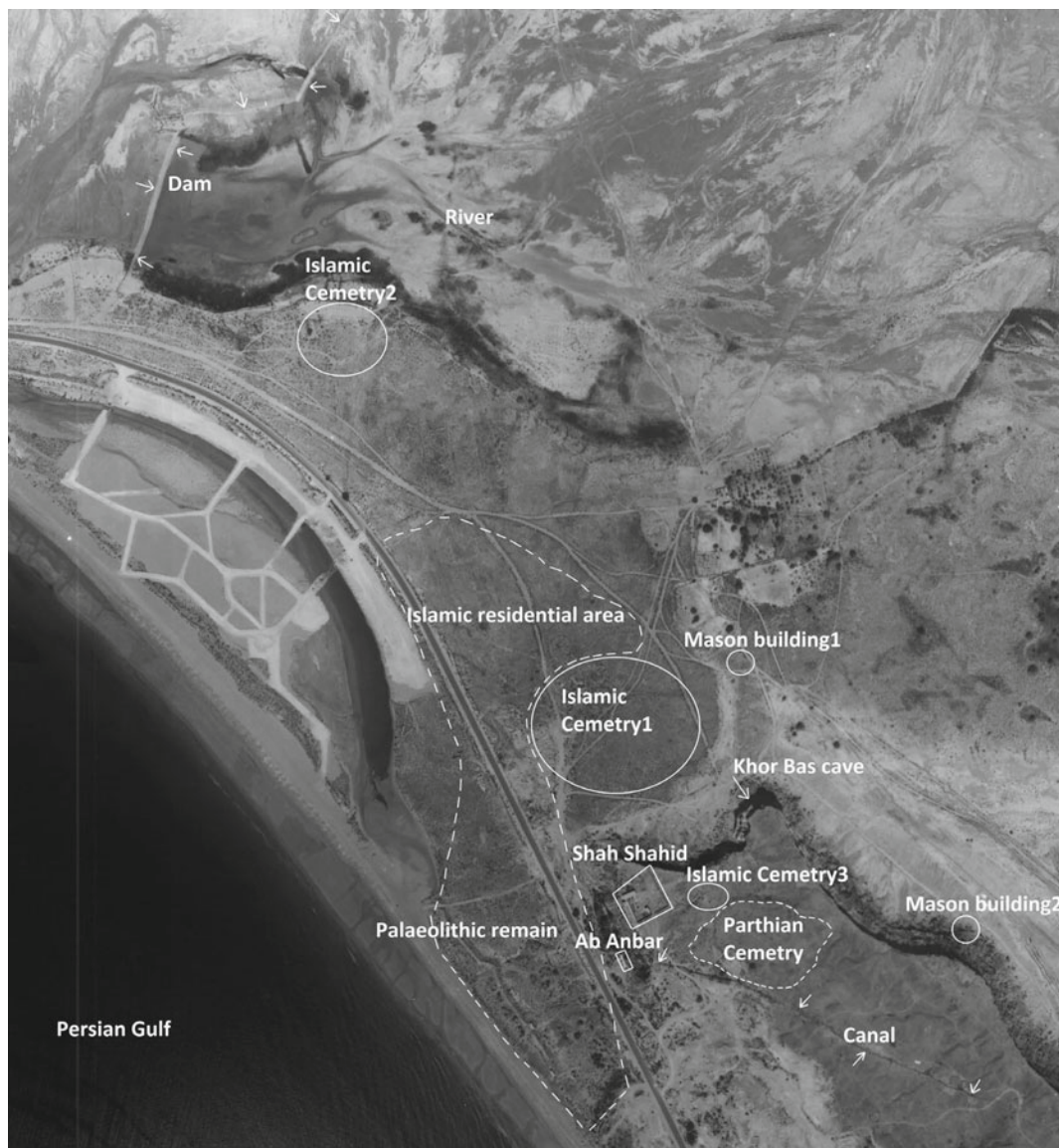
Fig. 2 The aerial photo of Khorbas showing the distribution of the entire sites (documentation center of Qeshm)

Fig. 3 General aerial photo of the site

Fig. 4 View of Khorbas hand carved caves

Fig. 5 One of the carved chamber of Khorbas cave

3   History Research

Khorbas have been surveyed by both Iranian and foreigner researchers. The history of archaeological research of Khorbas dating back to the 1978 when the site surveyed by Babak Rad (1972). During his studies, the Khorbas caves and also other sites near the cave investigated and for the first time mentioned to the historical site in the Khorbas (ibid.). After him the site have been surveyed by researchers continually. Khosrowzadeh conducted the most comprehensive survey and studied the each sites separately (Khosrowzadeh 2011). The most ancient time proposed for Khorbas sites goes back to the middle and late Islamic period and not mentioned to the prior periods. Also he measured the size of the site in the front of the cave 100 × 150 m (ibid.) which this size after our delimitation became near 10–15 ha.

The other Iranian researchers focused on the cave itself and ignored the other sites around the cave. (Ghasimi and Pirmoradi 2011; Boloukbashi 2001 and Mordasangi 2015). As mentioned the site have been surveyed by foreigner researchers also like D. T. Potts and C. A. Ptrie who visited it

in 2004 (Potts and Ptrie 2004). They surveyed the Island completely and also investigated one mason building in Khorbas. Interestingly this mason building located exactly beside Parthian cemetery and they did not mentioned to it. In addition during Iranian investigation also there is not any mentioned to this Parthian cemetery and introduce for the first time in this paper.

4 Parthian Remain

As mentioned the most ancient archaeological remain in Khorbas dating back to lower Paleolithic period. So there is a long gap between Paleolithic period to historic period not only in Khorbas but throughout island. No Neolithic and chalcolithic sites reported until now. The most ancient one are Iron Age (Khosrowzadeh 2006, 2011). Absence of prehistoric sites in Khorbas and also in Qeshm Island is not noteworthy. An explanation may lay in geomorphological history of the Island and sea level changes experience in the Persian Gulf basin since the late Pleistocene (Potts and Ptrie 2004). In Khorbas site the most ancient site after Paleolithic is Parthian remain. This new Parthian findings include one Parthian cemetery and some structure that seems to be residential area beside cemetery. As mentioned the cemetery located behind the Khorbas cave and a few meter away from shah shahid shrine (Figs. 6

Fig. 6 Aerial photo of Parthian cemeteries

Fig. 7 Different aerial view from Parthian cemeteries

and 7). The number of the graves are around 15–20. All of them have a same character. Circular shape with near 5 m diagonal and 1–1/5 m high. The top of graves covered with a lot of stone pieces and there is No slab (Figs. 8, 9, 10 and 11). Surface pottery is rare between the graves (Figs. 12, 13 and 14). D. T. Potts and C. A. Ptrie who visited the site in 2004, without mentioned to the graves sampled some potteris and dating them to the Sasanians period (Potts and Ptrie 2004). But this type of pottery seems to be Parthian and not Sasanain. Many cemeteries with the same character reported in other part of island and also other southern coastal area and dated to the Parthian period (Khosrowzadeh 2006, 2014). Among the pottery gathered from the cemetery, there is one painted pottery (Fig. 15). Also at one of the test trench excavated in the front of the cave the same painted potteries unearthed (Figs. 16, 17, 18 and 19). This kind of painted potteries are found on the surface of the historic (Parthian) period sites of Iranian southern areas and considered as a key dating instrument (Sajjadi

Figs. 8 Types of Parthian graves

Fig. 9 Types of Parthian graves
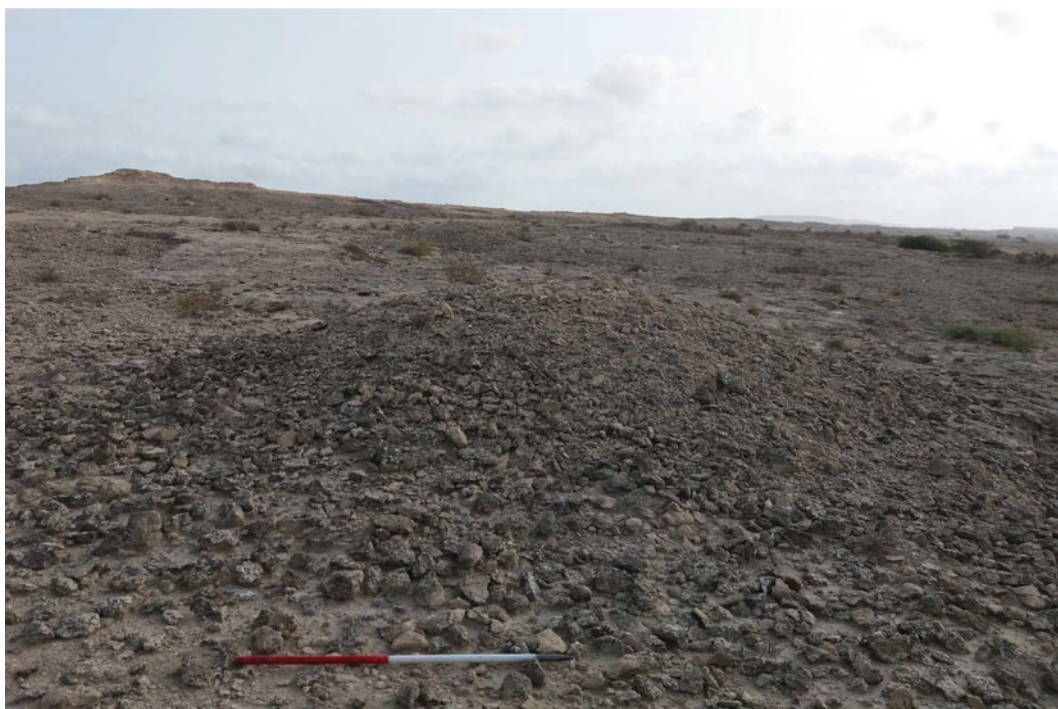
Figs. 10 Types of Parthian graves

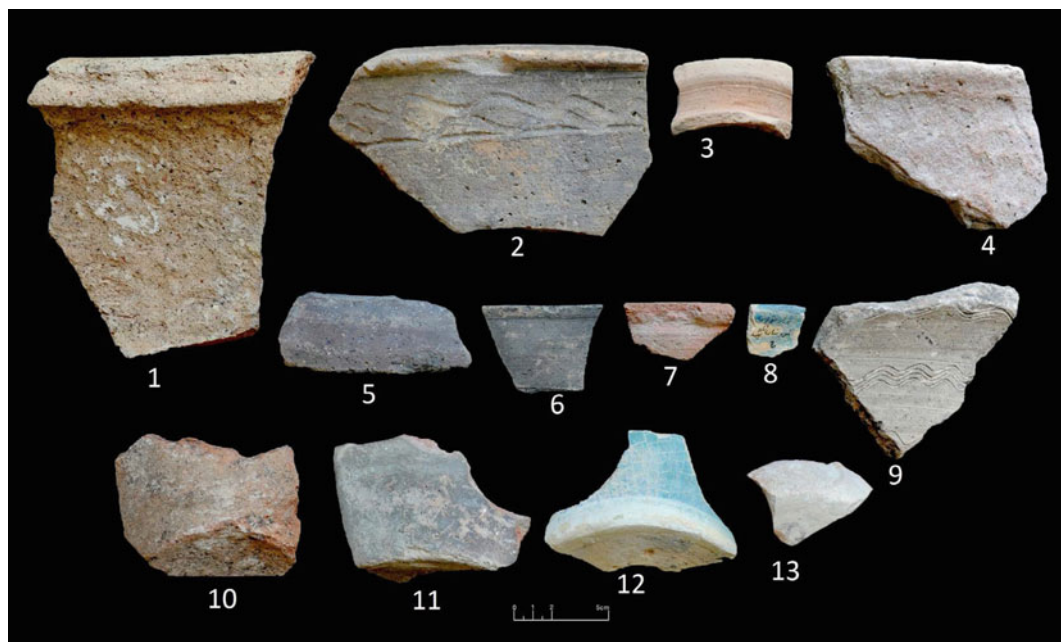
Fig. 11 Types of Parthian graves

Fig. 12 Type of potteries found from the surface of Parthian cemeteries

1992). Just a few meters away from the graves, there are some rectangle structures (walls?) that we succeed in recording some of them. There is also the same pottery at the surface of them. Unfortunately as a result of recent construction the main portion of this site completely destroyed and as mentioned just in a few points some structure remained (Figs. 20 and 21). Even the interpretation of this rectangle structures just based one surface survey and without excavation is difficult, but we assume that this structure that are contemporary with cemetery is a residential area? of the cemetery. In addition to this site, in other area of the Khorbas and in one of the test trench for the delimitation of the site located at the front of the cave some Parthian potteries unearthed also. Among them there are 2 painted potteries which are similar to the cemetery one. It should be noted that archaeological remains in front of cave including large Islamic cemetery and some rectangle mason buildings beside cemetery. The
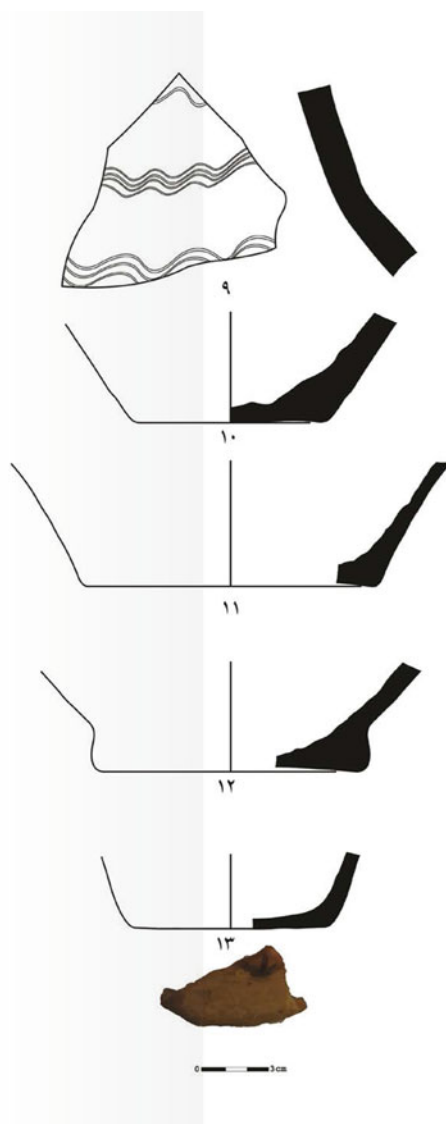
Figs. 13 Drawings of pottery types of Fig. 12
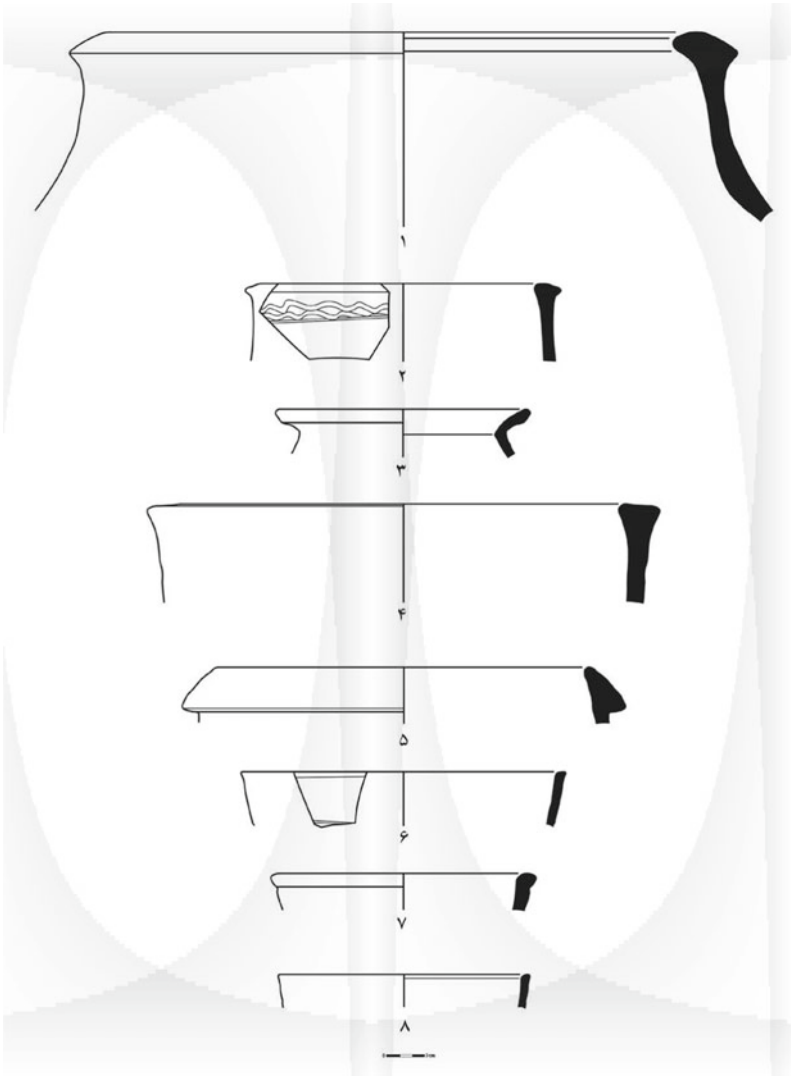
Fig. 14 Drawings of pottery types of Fig. 12
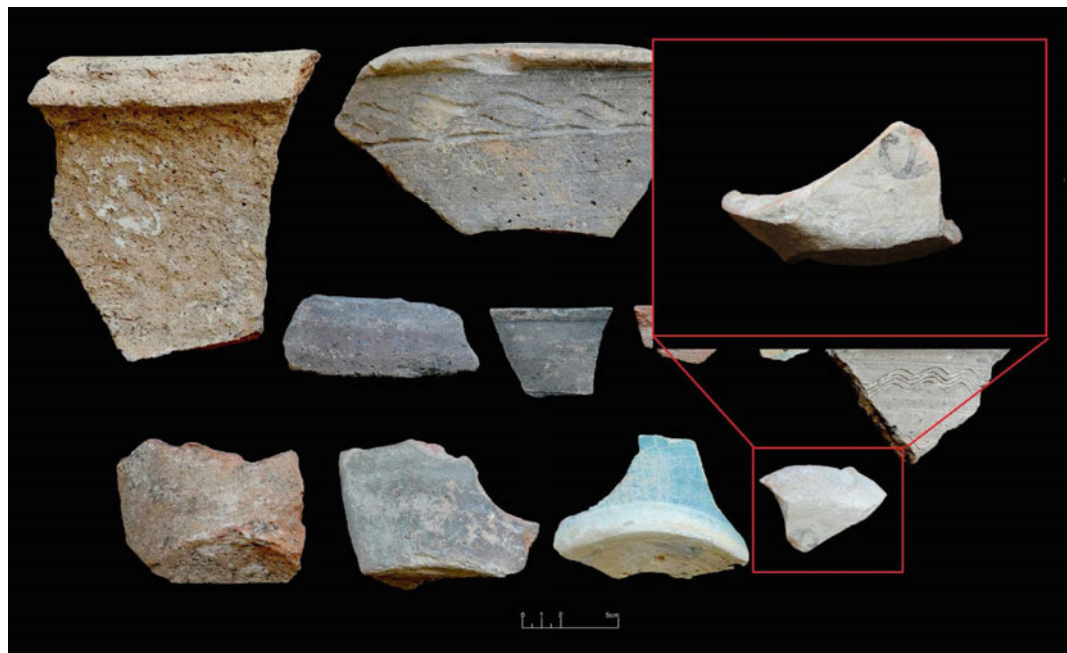
Fig. 15 Types of painted poetries found from the surface of Parthian cemeteries
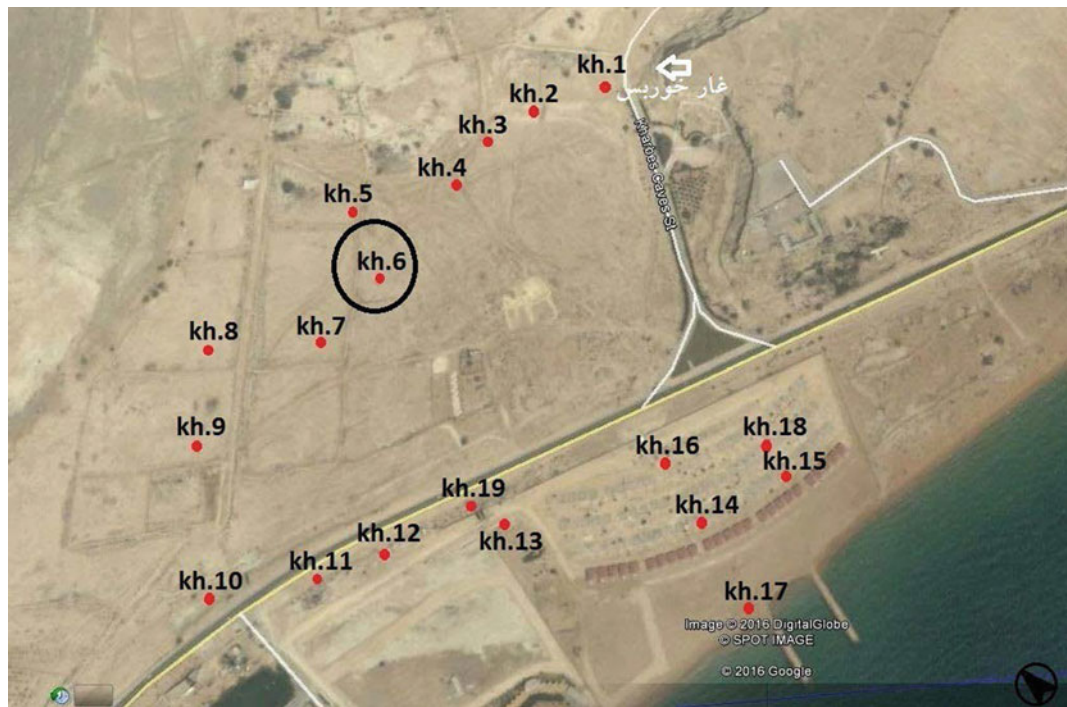
Fig. 16 Location of trench No. 6 on the aerial map of the site
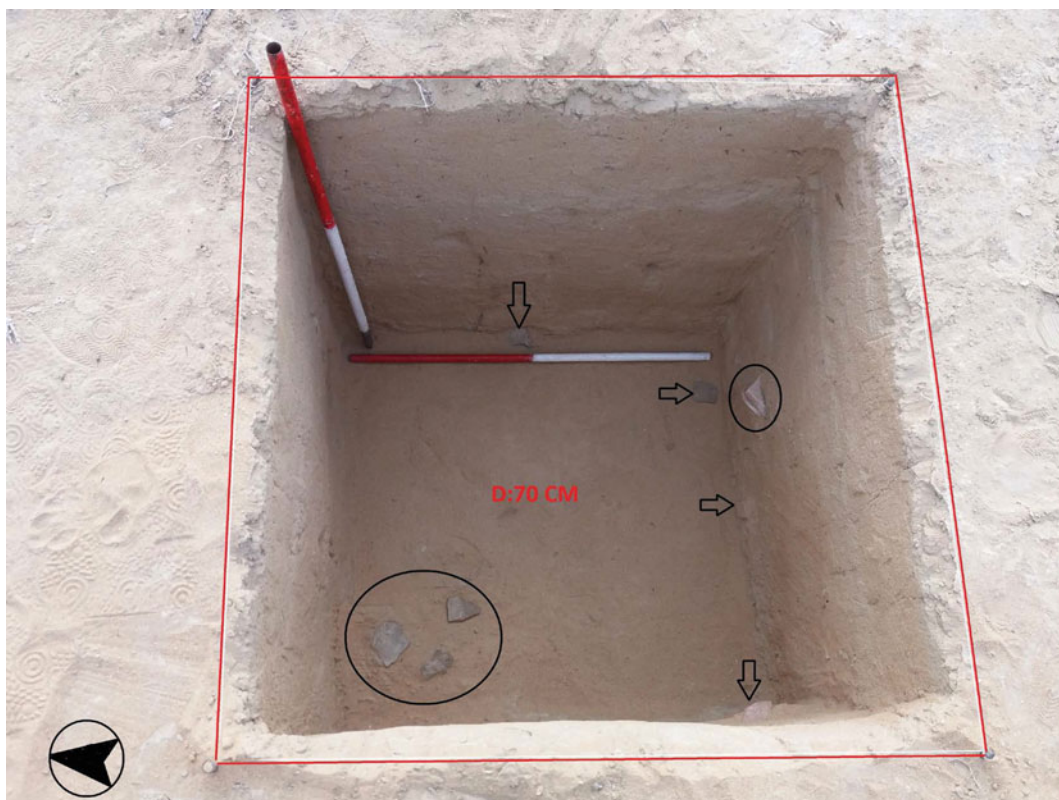
Fig. 17 Parthian potteries uncovered in trench No. 6

measurement of this site at the front of the cave is around 10 ha which begins at the front of the cave and extended to the shore line. All Islamic remains including graves and settlement sites beside graves located on mounds. At first we assume that this mounds are natural topography but one of the test trench (No. 6) digging out at one of this mounds some Parthian potteries

Fig. 18 Parthian potteries of trench No. 6 (two of which are painted)

unearthed and show that they are not natural one and seems to be archaeological deposits belong to the Parthian period. Also at the surface of Islamic remains in front of the cave in addition to the Islamic potteries, Parthian potteries also can be find (Fig. 22) which demonstrate that the archaeological site at the front of the cave including the deposit of 2 Islamic and Parthian periods. Based on mentioned evidences it become clear that there is a large archaeological site belonging to the Parthian period in the Khorbas. Some portion of
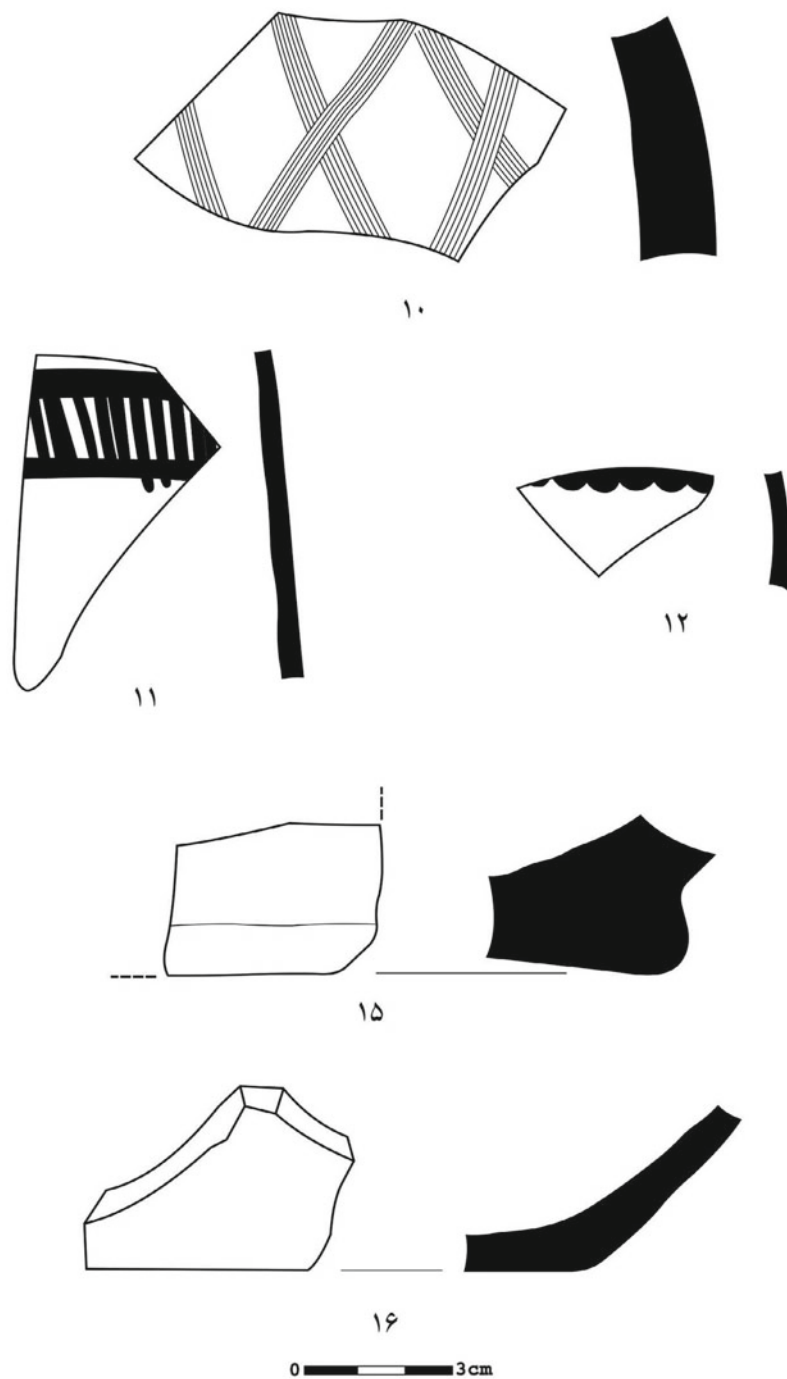
Figs. 20 A rectangular structures covered by the modern constructions

this site like cemetery and those mentioned rectangle structures located behind the cave and are at the surface. But the main portion of Parthian site which located in front of the cave covered with the Islamic remains. It has been claimed that chronology of the Khorbas hand-made cave goes back to the historic period (Ghasimi and Pirmoradi 2013; Mordasangi 2015) that our recent findings in Khorbas reinforce this assumption.

Fig. 21 A rectangular structures covered by the modern constructions

Fig. 22 Potteries collected from surface of the site, located in the front of the cave. Top row is Parthians

5 Concluding Remarks

Khosrowzadeh who survived the island divided the investigated sites to 3 main groups:

The first groups are small and large villages. The second one are fishing ports and the third one are commercial ports. The characterizes of the third group are exiting of many pottery shreds, glass and metal material and different kind of mollusk and shale on the surface (Khosrowzadeh 2011). Interesting all mentioned issue can be seen on Khorbase site but mentioned that this surface evidences may belong to the Islamic period also. In addition of this surface materials, large residential area? At the front of the cave which extended to the shoreline reinforced this hypothesis that what have been deposits under Islamic remains may not belong to the ordinary small village. It should be noted that this hypothesis is just based on surface survey and small (1 × 1 m) test trench. But all mentioned documents and evidences show that Khorbas is one of the main historic period sites of Qeshm Island. Obviously future large scale excavation may deny or reinforced this.

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Identifying the Pirdooshan Site Boundaries Through Test Excavation, from Kurdistan Province, Iran

Amir Saed Mucheshi

Abstract

Tepe Pirdooshan is located near the village of Dooshan in Sanandaj County, Kurdistan Province. Delimiting was carried out by Amir Saed Mucheshi in 2013 in order to determine of its extent. Findings from the delimiting data and the archaeological survey point to a single-period settlement of the Parthian period. The cultural evidence obtained from this mound is limited to parts of it. Due to the steepness of the slope and its single periodicity, this settlement has been severely eroded and parts of it are free from any cultural material. There are obvious similarities between the potteries and architectural remnants of this site with other sites of the Parthian period in western Iran. Architectural remains were identified in one or more rows of stone walls, mostly belonging to the foundation. In a number of soundings (operations) and sections in this Tepe, bricks were also observed. Due to the development of Sanandaj city and consequently Dooshan village, one of the villages situated on the outskirts of the city, this Tepe is surrounded by new constructions and the determination of its cultural extent can guarantee the protection of the remnants of this ancient site.

1 Introduction

Archaeological surveys carried out across the Kurdistan Province indicate that many settlements can be identified in different historical periods. Tepe Pirdooshan is one of them. Expansion of construction on the outskirts of Sanandaj city has led to determination of the extent of this site. It is noteworthy that a number of sites in this city, such as Tepe Pirdooshan, Tepe Geryashan, and Naysar and Asawleh Tepes, are surrounded by new constructions of the outlying areas of Sanandaj. The first important task in protecting these sites is identifying them. During the delimiting excavation, architectural remains and pottery sherds were identified which are described below.

2 Research Background

It seems that Tepe Pirdoshan was first identified during the archaeological survey of Sanandaj city in 2003 (Ahmadinia 2003). Delimiting of this Tepe was carried out by Amir Saed Muscheshi in the summer of 2013 on behalf of the Cultural

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Heritage, Handicrafts and Tourism Organization of Kurdistan Province. Tepe Pirdooshan was registered on November 30, 2010 with the number 29,461 on the list of Iranian national heritage sites. In addition to Tepe Pirdooshan in Sanandaj County many other Parthian sites have been identified. Based on archaeological studies, several sites have been identified dating back to the Parthian period in Sanandaj County such as Tepe Ban Ghala of Ghasrian village (upon surface archaeological surveys by authors). In the surrounding counties, many sites dating back to the Parthian period exist. 23 Parthian period sites were identified in Marivan County (Mohammadifar and Motarjem 2002), a significant percentage of which are in the form of cemeteries (Mohammadifar and Motarjem 2009). One of these sites is Tepe Kalin Kabood that situated in Marivan city. According to archeological investigations of this site, it belongs to Parthian period (Mohammadi Ghasrian 2014). Based on the preliminary reports of the archeological surveys carried out in other parts of the province, the number of historical sites belonging to this period is more common than other periods.

3 Geographical Location of Tepe Pirdooshan

The Village of Dooshan is located 2400 m southeast of the Sanandaj city's belt road (Figs. 1 and 2). Tepe Pirdooshan is situated on the south side of Dooshan village at 35° 14′ 56.25″ N and 47° 2′ 25.55″ E, 1507 m above sea level. The average elevation of this Tepe is about 27 m from the surrounding lands. The village has the same texture as other villages in the province, but has undergone many changes recently due to the expansion of Sanandaj city. Tepe Pirdooshan is a historical site formed on a cone rocky hill (Fig. 3), and the thickness of its cultural deposit is limited to one period, the Parthian period. This site is surrounded by a small seasonal river and several springs. A watery seasonal spring is located precisely on the southern side of the Tepe which dries in approximately early July. The archaeological team witnessed the drying of the spring during the last days in the early summer of 2013. Tepe Pirdooshan has been damaged due to construction of a cemetery, buildings, canals and agricultural roads, as well as gardening. A cemetery belonging to the contemporary period is located in the western part of the site fenced by inhabitants. Inside the fence, on the top of the hill, is a new building.

4 Field Soundings

33 soundings and sections were excavated with different dimensions. These soundings were named in English letters: A, B, C, D, E, A′, B′, C′, D′, E′, F, G, H, I, J, K, L, M, N, O, P, Q, S, T, R, U, V, X, Y, Z, and W (see: Fig. 4). The two excavated sections also included the top of the Tepe (which was conducted on the channel) and a section on the eastern slope. Soundings and sections were excavated to different depths from 36 to 190 cm, which either ended in cultural deposits or bedrock (virgin soil) of the Tepe. The soundings of L, K, X, M, I, J, O, Z, L, R, S, Q and the upper part of the Tepe have cultural deposits and architectural layers (Fig. 5). In other soundings—often in the southern parts- no architectural or archaeological layers were identified (Fig. 6). Amongst the discovered architectural remnants, the stone structures of two soundings, I and J, have remained in better condition than the architectural remains of the other soundings. The remains of the stone architecture of these two soundings can be part of the foundation. Stone walls were plastered with thatch.

5 Findings

In addition to architectural evidence, the only findings were pottery sherds which were divided into two groups: common pottery and clinky ware (Fig. 7; Table 1). Most of the potteries were of common types and the Clinky wares limited in number. Pottery no 19 from Fig. 7 of sounding Z belongs to this group. Clinky wares show the following characteristics: orange in color, fine
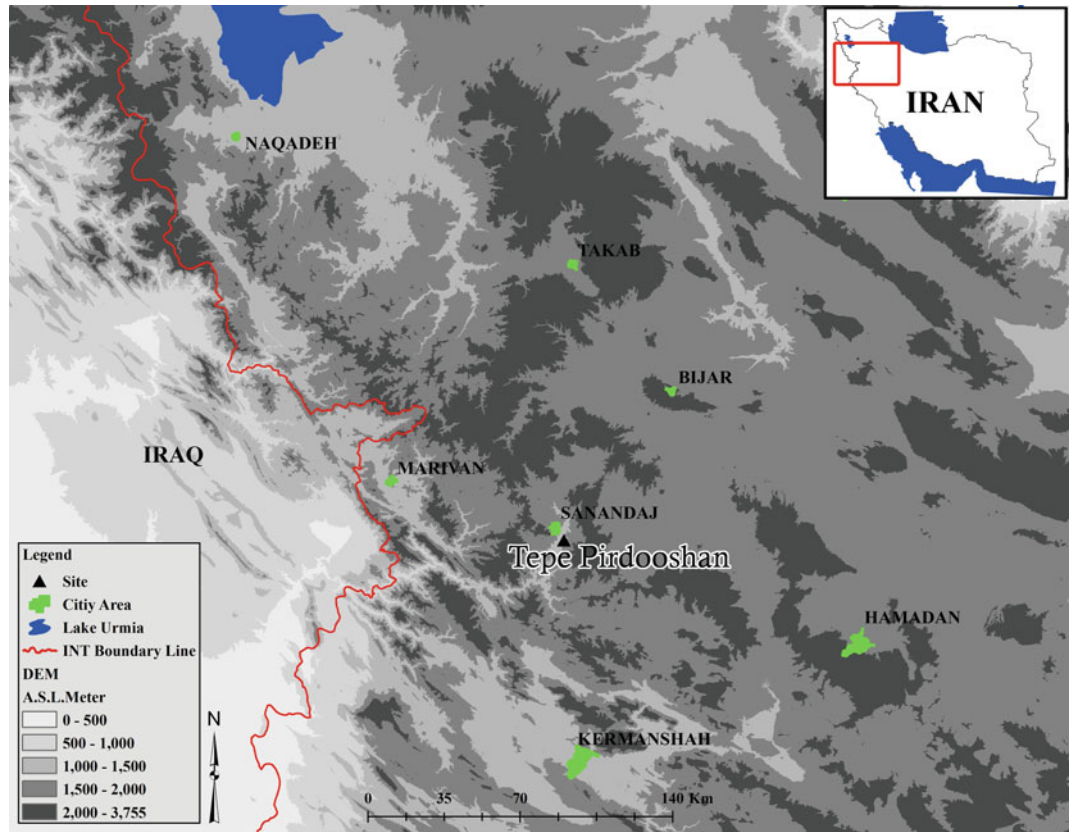
Fig. 1 Map showing Iranian Kurdistan and Tepe Pirdooshan location

technique, well fired, and small in size with soft sandy temper. None of these potteries showed traces of kitchen use and were in the form of small bowls and cups. Common pottery sherds were in different colors including buff, brown and orange and consisted of a variety of bowls, jars, and jugs, large and small containers and in the form of a range of common and coarse

potteries. Most of these potteries are well fired, but in some cases, a visible pale gray color can be seen inside the body which indicates that their firing was not complete. Decorations like incised design and ropes appliqué band were used in the surface of the body. In some cases, smoke of the fire is visible on the surface of the pottery. One interesting fact regarding the common ware is
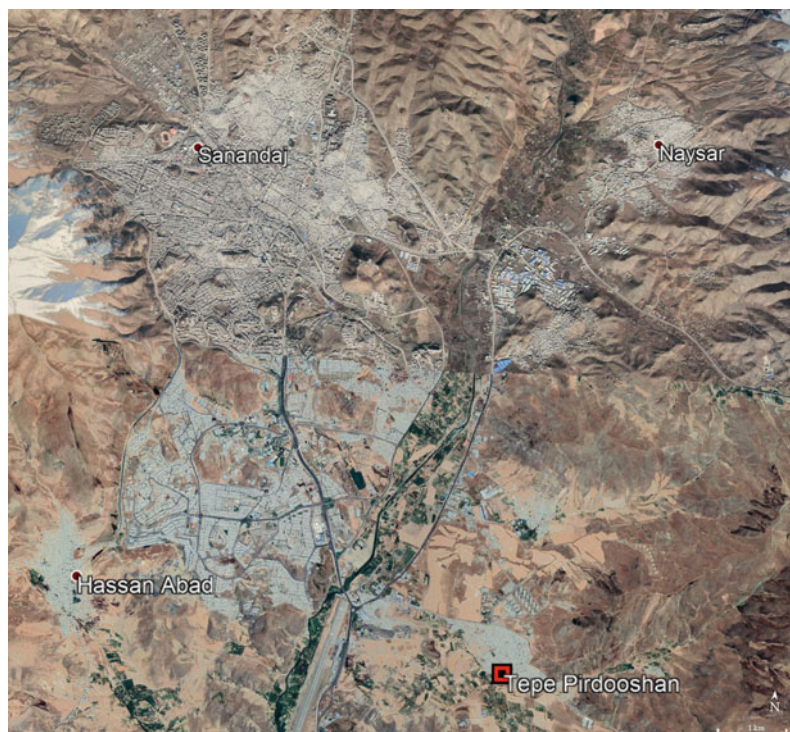
Fig. 2 Arial photograph of tepe Pirdooshan

that a number were handmade but most were made by wheel technique. Most of the potteries with a handle were handmade. Fine grain or sand temper was used in their temper. This also applies to large pithos. A notable point is that the larger potteries do not have slip or less attention has been paid to them. Temper of these wares is bigger than the others. There are no traces of glazed and painted potteries in Tepe Pirdooshan.

Parthian potteries in western Iran, according to Ernie Haerinck chronology, are classified into three periods: the early, middle and late periods. The middle period of the Parthian era is approximately 175–150 B.C. until the first century A.D.

The potteries indicative of the middle period are mostly from Tepe Nushijan and are classified into three groups including common, painted and clinky wares. Common potteries show just wheel made traces and no traces of polishing and smoothing on the surface (Haerinck 1983). This kind of pottery is very prominent and easy to identify, and can be used in western Iran as excellent guides to ancient sites of the Parthian period. Most of this group is seen in Tepe Pirdooshan.

Based on the study of the settlement patterns of Parthian sites in western Iran, many sites have been identified just with single period of the

Fig. 3 Tepe Pirdooshan viewed from the West

Parthian era and with clinky ware. This matter applies also to Tepe Pirdooshan. The diversity of the use of different indigenous materials is one of the main features of the Parthian period architecture, which led to the creation of various traditions in this field (Mohammadifar 2005: 523). In the Parthian period, in the mountainous areas, stone was used as building materials (Herman 1977) which was also the case in Tepe Pirdooshan.

Fig. 4 Topographic map of the tepe Pirdooshan

Fig. 5 Soundings with cultural layer

Sounding: X

Sounding: Z

Sounding: O

Sounding: L

Sounding: J

Sounding: K

Fig. 6 Soundings with no cultural layer

Sounding: G

Sounding: C

Sounding: B

Sounding: A

Fig. 7 Diagrams showing Pirdooshan diagnostic pottery sherds according to the sounding locations

Fig. 7 (continued)

Fig. 7 (continued)

3

1

2

Sounding: W   4

Fig. 7 (continued)

4

2

3

1

5

North Section

6

8

9

7

10

Survey of Tepe Pirdooshan

Table 1 The pottery sherds characteristics of Tepe Pirdooshan according to sounding location
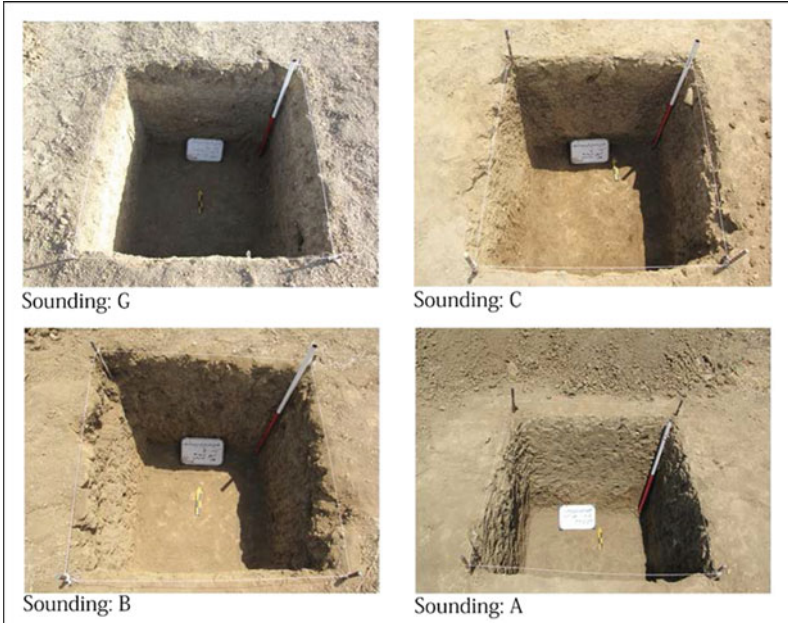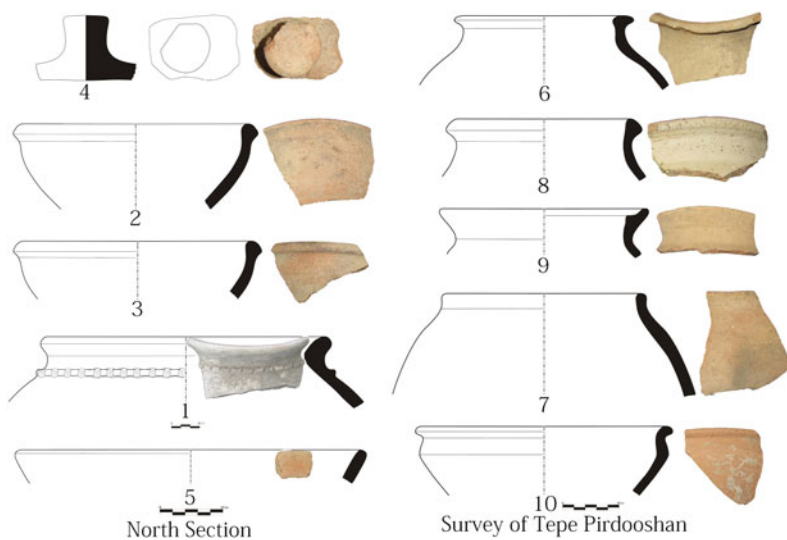
Number	Sounding	Sherd fragment	Body color	Fired	Technic	Surface color Interior	Surface color Exterior	Texture	Temper	Ornaments and remarks
1	U	Rim	Orange	Well fired	Wheel made	Orange	Orange	Medium	Sand	
2	U	Rim	Orange	Well fired	Wheel made	Orange	Buff	Medium	Sand	
3	U	Rim	Brown	Well fired	Wheel made	Orange	Buff	Medium	Sand	
4	U	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand	
5	U	Rim	Orange	Well fired	Wheel made	Buff	Buff	Medium	Sand	
6	U	Rim	Buff	Well fired	Wheel made	Buff	Buff	Fine	Sand	
7	U	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand	
8	J	Rim	Buff	Well fired	Wheel made	Brown	Brown	Medium	Sand	
9	J	Rim	Buff	Well fired	Hand made	Buff	Buff	Medium	Sand	
10	J	Handle	Buff	Well fired	Hand made	Brown	Buff	Medium	Sand	
11	J	Rim	Orange	Well fired	Wheel made	Buff	Buff	Medium	Sand	
12	J	Body	Orange	Well fired	Wheel made	Brown	Brown	Medium	Sand	
13	J	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand	
14	J	Rim	Buff	Well fired	Wheel made	Brown	Buff	Medium	Sand	
15	Z	Rim	Brown	Well fired	Hand made	Red	Brown	Medium	Combined	With handle
16	Z	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Combined	
17	Z	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Combined	
18	Z	Rim	Buff	Well fired	Hand made	Creamy	Buff	Medium	Sand	
19	Z	Base	Grey	Well fired	Wheel made	Red	Creamy	Fine	Fine sand	Clinky ware
20	Z	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Combined	
21	X	Rim	Pale brown	Well fired	Hand made	Buff	Buff	Medium	Sand	
22	X	Rim	Brown	Well fired	Wheel made	Buff	Buff	Medium	Sand	
23	X	Rim	Brown	Well fired	Hand made	Brown	Brown	Medium	Sand	
24	X	Rim	Brown	Well fired	Hand made	Brown	Brown	Medium	Sand	
25	X	Rim	Pale red	Well fired	Wheel made	Buff	Buff	Medium	Sand	

(continued)

Table 1 (continued)

Number	Sounding	Sherd fragment	Body color	Fired	Technic	Surface color		Texture	Temper
						Interior	Exterior		
1	Q	Body	Grey-Brown	Well fired	Hand made	Brown	Brown	Medium	Sand
2	Q	Base	Buff	Well fired	Hand made	Buff	Buff	Medium	Sand
3	O	Rim	Pale brown	Well fired	Wheel made	Pale brown	Brown	Medium	Sand
4	O	Rim	Buff	Well fired	Hand made	Buff	Buff	Medium	Sand
5	K	Rim	Buff	Well fired	Hand made	Buff	Buff	Medium	Sand
6	K	Rim	Buff	Under fired	Wheel made	Brown	Brown	Medium	Sand
7	K	Rim	Buff	Well fired	Hand made	Brown	Buff	Medium	Sand
8	K	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand
9	K	Rim	Orange	Well fired	Hand made	Buff	Buff	Medium	Sand
10	K	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand
11	K	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand
12	K	Rim	Brown	Well fired	Wheel made	Buff	Buff	Medium	Sand
13	L	Rim	Red	Well fired	Hand made	Brown	Brown	Medium	Sand
14	L	Rim	Buff	Well fired	Hand made	Buff	Brown	Medium	Sand
15	I	Rim	Pale brown	Well fired	Wheel made	Brown	Pale brown	Medium	Sand
16	I	Rim	Buff	Well fired	Wheel made	Buff	Buff	Fine	Sand

(continued)

Table 1 (continued)

Number	Sounding	Sherd fragment	Body color	Fired	Technic	Surface color		Texture	Temper
						Interior	Exterior		
1	W	Rim	Pale brown	Well fired	Wheel made	Pale brown	Pale brown	Medium	Sand
2	W	Rim	Buff	Under fired	Wheel made	Buff	Buff	Medium	Sand
3	W	Rim	Pale brown	Well fired	Wheel made	Pale brown	Pale brown	Medium	Sand
4	W	Handle	Pale brown	Well fired	Hand made	Pale brown	Pale brown	Coarse	Sand

Number	Location of potteries	Sherd fragment	Body color	Fired	Technic	Surface color		Texture	Temper
						Interior	Exterior		
1	North Section	Rim	Buff	Under fired	Hand made	Brown	Brown	Medium	Sand
2	North section	Rim	Buff	Well fired	Hand made	Buff	Buff	Fine	Sand
3	North section	Rim	Buff	Well fired	Wheel made	Buff	Buff	Fine	Sand
4	North section	Lid	Buff	Well fired	Hand made	Buff	Buff	Medium	Sand
5	North section	Rim	Buff	Well fired	Hand made	Buff	Buff	Medium	Sand
6	Survey	Rim	Buff	Well fired	Wheel made	Buff	Buff	Fine	Sand
7	Survey	Rim	Buff	Well fired	Hand made	Buff	Buff	Medium	Sand
8	Survey	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand
9	Survey	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand
10	Survey	Rim	Buff	Well fired	Wheel made	Buff	Buff	Medium	Sand

6   Concluding Remarks

Based on the findings of the Tepe Pirdooshan, it can be concluded that this site is a single periodic part of the Parthian period. Common potteries and Clinky wares were discovered, but there were no traces of painted and glazed potteries. Cultural layer of Tepe Pirdooshan mostly occur in its central and upper parts. In addition, the cultural layers are more common in the western side than the other parts. Parts of this mound are free of any cultural material due to severe erosion, its slopes and single periodicity. The soundings in the center lacked any cultural layer, while the lateral and lower soundings had a Parthian architectural structure. Pottery from this site represents typical pottery in western Iran during the Parthian period.

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A New View on the Possible Reconstruction of the "Famous Clibanarius" Graffito from Dura Europos

Adam Lech Kubik

Abstract

Below considerations are an attempt to analyze one of the "famous clibanarius" graffito from Dura Europos, excavated by the Yale-French Excavations at Dura, present-day Syria, held in 1928–37. Currently graffito is held in the Yale University Art Gallery collection, New Haven, USA. Based on the lack of any "leading", "canonical" or "scholar approved" version of such a well known object in the context of Parthian and Sasanian art, current author will try to re-analyze the object in comparisons with other Parthian period graffiti.

1 Introduction

This paper is the final version of a study of one of the most well-known (Rostovtzeff 1931: 2, 1932: 195, 1933: 1–2; Pugachenkova 1966: 37;

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Robinson 1967: 20, 1975: 186; Nikonorov 1985: 33; Mielczarek 1993: 119; James 1986: 119, 2004: 43; Symonenko 2009: 121, 2013: 318; Wójcikowski 2013: 235; Skupniewicz 2014: pl. 12, 2016: 68) depictions of a heavily armoured cavalryman of the Arsacid era (Dating of the object is rather problematic. But even if Graffito from Dura was made after Lucius Verus conquer in A.D. 164/165 see for example Hopkins 1979, 257, still we can talk about Parthian art continuation. With all the definition problems of the term Parthian art see: Rostovtzeff 1935: 155–304; Invernizzi 2011: 189–207 and obvious influence of Romans from Roman garrison in Dura see for example: Dąbrowa 1981: 61–75; Pollard 2004: 119–144). While working on an article on the iconographic formula of depicting galloping horses in Parthian and Sasanian art, the author had an opportunity to analyze the graffiti of those periods. During the course of this work, several interpretations of the "*famous clibanarius*" (term "*famous clibanarius*" firstly used by: James 2004: 43) drawing were found. It seems that the problem the graffito presents is illustrated in the most thorough way through a juxtaposition of the two best known versions in the work of S. James "Final Report VII of the Dura Europos Excavations" (Fig. 1, James 2004: 43). The lack of any "leading", "canonical" or "scholar approved" version of the object published in the context of Parthian and Sasanian art is surprising. It is also clear that photographs of the object are not entirely clear where all the
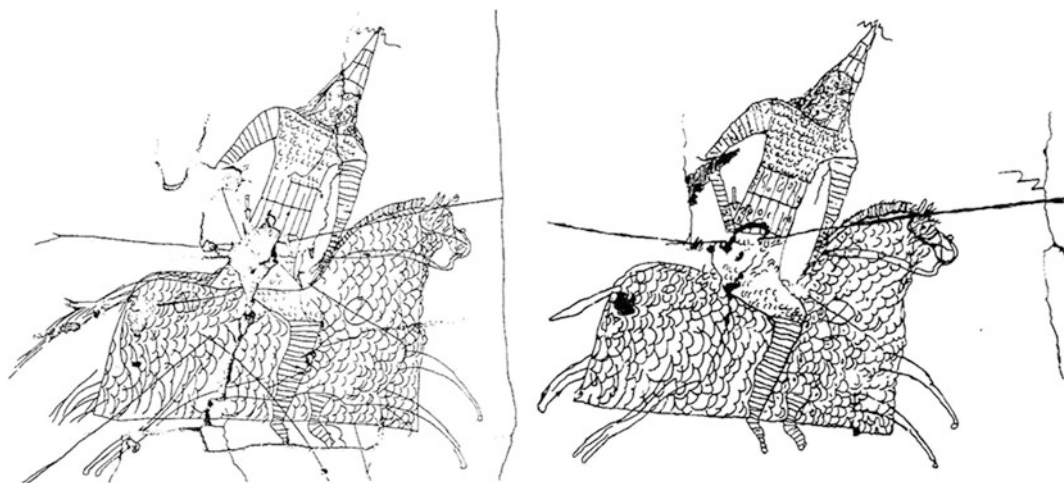
Fig. 1 Two interpretations of the "famous clibanarius" graffiti, after: James 2004: Fig. 23, p. 43

details are concerned. Furthermore they are not widely published. Although the graphic nature is enhanced through the use of drawings, on many occasions such drawings of the graffito do not closely resemble the original graffito. Therefore the first and the most obvious question is, which of the interpretations is correct? It is not possible that such different pictures can accurately show the same object. This question inspired other thoughts: What made the authors of these drawings express their impressions so differently? To what extent canon reconstruct what was in reality depicted, by means of comparison with other Dura Europos graffiti, and would such an attempt be possible? These questions inspired the author to undertake an analysis of the graffito which would hopefully provide a new insight of it.

2 "Famous Clibanarius"

During excavations under the auspices of Yale University and the Academie des Inscriptions et Belles-Lettres in Paris (carried out in 1929–1937), a graffito depicting a heavily armoured horseman was discovered at Dura Europos in Syria. The horseman is shown in a dynamic manner, turned right, holding a lance along the horse's side in his right hand, and sitting on an

armoured horse. On this depiction of the "*famous clibanarius*", we can also see a sword (shown in the form of a sword-grip behind his torso), but we cannot see any archery equipment. However, the most striking and interesting feature is that the silhouette of the horse and part of the rider's left leg can be seen below the armour. The horse harness, as depicted on the graffito, was scratched just to the end of the lines of the silhouette of the horse itself, not on the edge of the armour. Comparing this with the other graffiti from Dura Europos in which other examples of the horse armour can be found, the author came to a novel conclusion–namely that there were at least three stages of production of this graffi

1. The horse's silhouette, possibly with harness,
2. The rider's silhouette, possibly with armour,
3. The horse's armour.

If this observation is correct, one could state that the maker of this crude work of art might not initially have intended to depict a heavily armoured horse. Another interesting feature is that on the left side of the second graffiti from Dura Europos (Block X3/X5, Palace of Dux Ripae, terrace, see: Goldman 1999: 29–40), showing a heavily armoured horse, we can see only a fragment of the silhouette of the horse. Perhaps the covering of the mounts body with
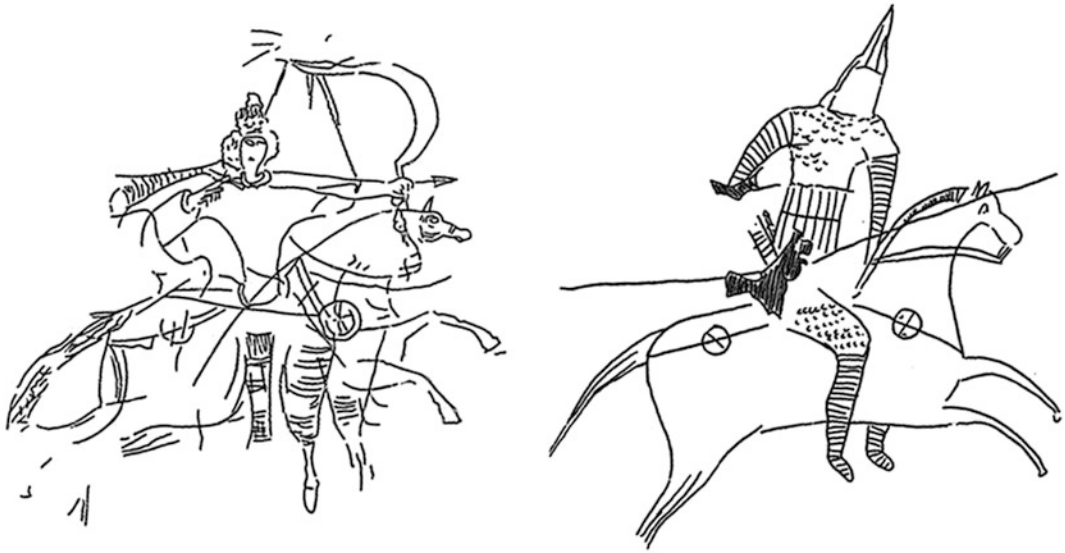
Fig. 2 From the left: (1) Beit Ma'nu room nr. 59 graffiti, after: Riccardi 1991: Fig. 4, p. 194. (2) Silhouette of the unarmoured horse and the rider. Drawing: author

armour in our discussed object was to hide imperfections of the drawing. Of course it cannot be excluded that at first, a "canonical" (as a "canon" author means a set of formulae understandable for the author of the art) figure of the horse was depicted and only afterwards was it given harness and armour. The decorative lines were clearly made before the armour, which shows that an armoured horseman on an unarmoured horse may have been the initial subject of the author of the "*famous clibanarius*".

Using the drawing of M. I. Rostovtzeff and the original depiction from Yale University (Available online on: http://ecatalogue.art.yale.edu/detail-htm?objectId5206), the author attempted to visualize the horse without the armour, thereby defining the stages within the drawing. Firstly, the horse was shown jumping, which is a typical feature of the Parthian "canon". This formula was mainly abandoned and replaced by the so called flying gallop in Sasanian art. Secondly, when comparing the main graffito with others, one can categorically state that the so called "*famous clibanarius*" from Dura Europos is within a local visual tradition. The way this "*famous clibanarius*" has been depicted, in the form of a jumping horse with

harness, is very similar to one of the graffiti from Hatra (Fig. 2, Beit Ma'nu room nr. 59, see: Ibrahim 1986: 403; Riccardi 1991: 194) which also suggests a similar dating of these depictions. In such a case one can talk about a vivid, local Parthian tradition (Pietrzykowski 1985: 55–59, see also: Millar 1995: 330–331) within the art of Western Iran (made by Semitic non-Iranian population, see: Yatsenko 2006: 126)

Going back to the available drawings of the "*famous clibanarius*", one of the elements which clearly highlights differences between the two best-known drawn versions (those of M. I. Rostovtzeff and of H. R. Robinson) is the rider's head. It was shown by those two authors in two different variants: namely a bearded face *en trios quarts*, and a face fully covered with a mail aventail. A clearer interpretation is difficult because of the poor state of preservation which might thus allow numerous reconstructions. In order to tackle this problem the author compared this crude work of art with other graffiti from Dura Europos. In over 70% of Dura graffiti we can observe strict frontalism (for Parthian frontalism at Dura see: Downey 1977: 283–287, 2003: 135; Pietrzykowski 1985: 55–59; Garthwaite 2005: 117), while in other cases the faces

are shown in profile or are merely damaged and headless drawings. Here it is important to note that some of the profile graffiti are clearly associated with the Romans (for example Block J3/J5, see: Cumont 1926: 136–137; Goldman 1999: 67–68). Given this evidence, we should reject the *en trios quarts* form proposed by M. I. Rostovtzeff (what is interesting M. I. Rostovtzeff describes frontal view of the head of the, "*famous clibanarius*", see: Rostovtzeff 1933: 216) because such a feature is completely absent from Parthian art. Consequently, in order to tackle the problem anew the author used photographs dating the 1970s.

We nevertheless agree with the observation by M. I. Rostovtzeff that the rings (interpreted by H. R. Robinson as mail) are not distributed equally over the surface of the face. They are dense in the right lower part of the face but are otherwise spread rather chaotically. It should be pointed out that the contours of the armour on rider's torso, horse barding and fragment of the added rings of the mail hood were depicted with relatively regular lines. A freely flowing beard, possible leg and arm armours, and long lances can be observed on another graffito from Dura Europos (Fig. 3, Block C3, house D, room 5, see in: Goldman 1999: 60; James 2004: 60) which shows a standing lancer. In the light of this evidence, it is most likely that the "*famous clibinarius*" is a bearded warrior with an open-face helmet plus an aventail which covers the back of his head and perhaps also his neck. The biggest problem regarding a clear interpretation is that graffiti were not made by trained or talented artists but instead consist of rather crude pieces of art made on plaster; furthermore they include numerous marks coming from the plaster structure and the process of plastering itself. It should be noted here that the making of the "*famous clibanarius*" changed his mind several times while scratching his depiction on the wall. At this point, a particular problem arises when we look at the helmet where we see two vertical lines which suggesting o us the position of the rider's face. Clearly that the vertical axis of the original

head is different from the vertical axis defined by the helmet and the mail hood or aventail. It is therefore quite possible that the helmet was made after and was indeed "put on the existing head" of the rider. What is more, part of the aventail (represented by regular rings) on the right was added to weaken the impression of a too sharp angle of this newly drawn helmet and possibly to add symmetry to the correction made on the left side. There are also several lines adjusting or altering the representation of the mail hood (Table 2). Comparing the helmet to other illustrations which show profile positions without any neck cover, we clearly identify a simple rule; namely that in such situations the back of the head is covered and the face part is uncovered. In our graffito it seems that the back part of the head is completely uncovered as is the left part of the face where we can see places without any scratches. So it is possible to conclude that the head was in reality shown in a frontal, and not a profile, view (Table 1).

Fig. 3 C3, house D, room 5 graffiti, after: Goldman 1999: D. 33, p. 60

Table 1 From the left: (1) Block M8, Christian building (edifice of tower 17) room 4, south wall, after: Goldman 1999, A. 13b. p. 30–31. Dura Europos, mounted archer graffiti. Two 'different kinds' of web, separated on the chest by horizontal line in authors opinion symbolizing two different kinds of maille. (2) Dura Europos "famous clibanarius" graffiti, drawing: author. (3) Standing Archer with wearing hybrid armour, Panjikent wall (G) 1, room 1, object VI, after: Belenickij and Piotrovskij 1959, Table 7. (4) Warrior from eastern room of Varahsha in rectangle plate lamellar armour, after: Raspopova 1980, ris. 56, p. 83. Dots on lamellar plates on the cuirass could show construction of the armour, and looks similar to the belly protection of the "famous clibanarius"
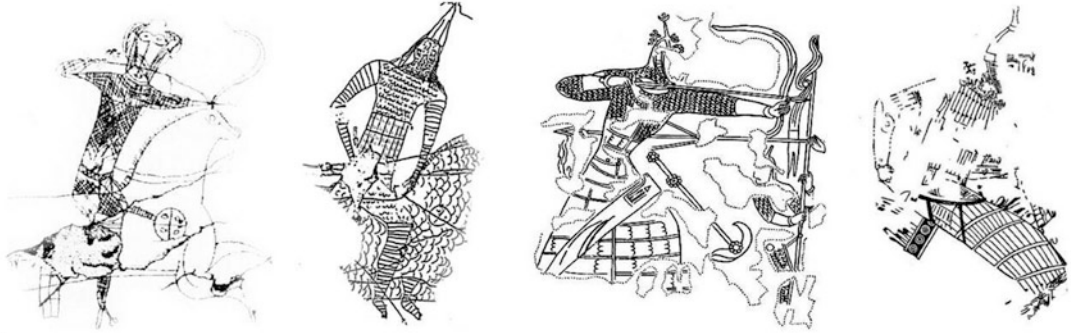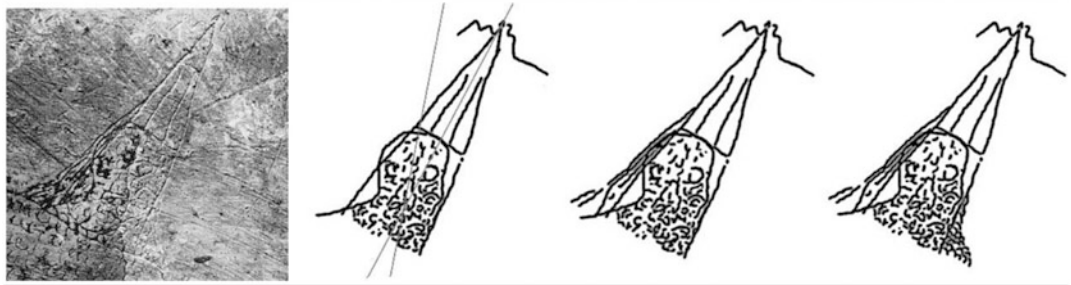

Table 2 From the left: (1) Head of "famous clibanarius" after: Goldman 1999: A 14a., p. 32. (2–4) Stages of "putting helmet on the head", drawing: author

3 Helmet

One of the most interesting aspects of the "*famous clibanarius*" is the helmet. When analyzing the face in this depiction, the extension of the lines drawn along the helmet can be interpreted as a multi segmented construction (Similar constructions can be seen on well-known illustrations from Trajan column. See also: Sazonov et al. 1995: ris. 5.1, p. 133; Lur'e 2013: 286). It should be stated that all the elements are shown in notable detail, whereas the lines of the segmented limbs protection and horse harness were, drawn in a very careful manner so they do not extend beyond the main outline. Both in early and current photos of the piece, these lines follow the directions of other scratches which are in reality left over from the plastering process. What we can see on early photos of this piece is that, with the exception of the lower edge, there was a third parallel line which crossed the left part of the helmet. Therefore it could not be an element made by the original maker of the graffito. Rejecting the above, we can reconstruct the helmet as being a segmented conical helmet consisting of four parts. However, as was mentioned above, there were several phases of the drawing and a cut in the mail

Table 3 From the left: (1) Sarmatian helmet from Gorodskij hutor, after: Sazonov et al. 1995: ris. 5.1, p. 133, (2) Sasanian helmet from Dura Europos, after: James 1986: Fig. 15, p. 122. (3) Helmet from Dura Europos "famous clibanarius" graffiti, drawing: author. (4) Sasanian helmet from National Museum in Bagdad collection, after: Skupniewicz 2007: Fig. 1.3, p. 10
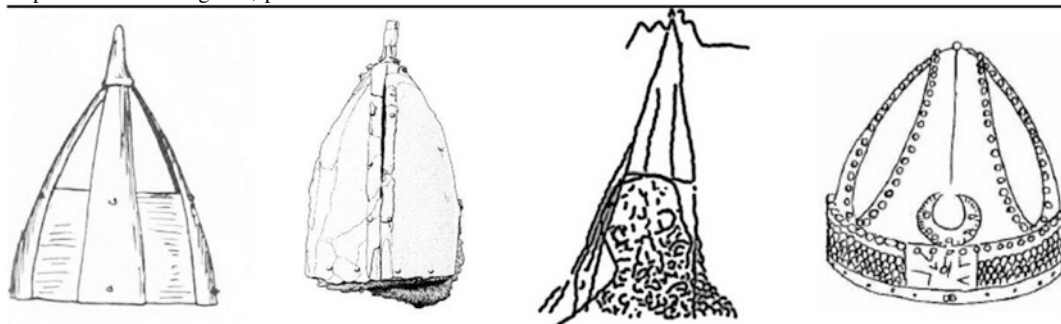
hood as well as a later extension of this hood on the right clearly suggests that the helmet was shown from the front. This would still permit a construction which portrays the helmet from the front, being made of two halves joined by a ridge, analogical to the helmet which was actually found in Dura Europos (James 2004: 104–105). This has the shape of a *kulahu/kolaf* form of hat (Skupniewicz 2007: 9, for hats as a status marker in Iran see also: Kaim 1997: 50–58, 64; Kubik 2014: 166), otherwise known as a "Parthian cap" as it was called by D. Nicolle (Table 3, Nicolle 1991: 307).

4   Armour

The next element is perhaps somewhat controversial; namely the armour depicted on the "*famous clibanarius*". It could possibly show long segmented limb defences, while the man's torso and thighs are protected by small scales or mail, plus an additional abdomen protection consisting of large plates. This was initially interpreted by the author as a form of protective war belt of possibly nomadic origin (For war belts made from the plates, see also: Savchenko 2004: 227; Jangulov 2014: 226–227), possibly related to Uratian and European Scythian belts which had been introduced into Bactria by Saka-Yuechi tribes from Central Asia (Nikonorov and Savchuk 1992: 53). As such they would have been

similar to much later examples from Tibet [Warriors of the Himalayas]. Here one must agree with Symonenko (2009: 119) and Wójcikowski (2013: 236) that it is most likely we are looking at an example of so called hybrid armour For comparison one can point to two armours from Sarmatian barrows published by E. Lench (dating from the first to early second centuries A. D.). It should be further noted that A. V. Symonenko, pointing out the similarity of these armours, classifies the armours from the Kuban area as imports and as very rare examples among the thousands of Sarmatian graves. Indeed he prefers to link these armours with Sarmatian raids into Transcaucasia area (Symonenko 2013: 307). R. S. Wójcikowski states that this was a new form of armour which evolved as a combination of mail (which itself became popular in Iran in the third century) and plates. He also states that mail armour was introduced only gradually in Iran. This led to the development of various combinations of mail and other types of armour such as scale or lamellar, which can be seen in the third century (Wójcikowski 2013: 240–243). Nevertheless, we cannot agree with the theory by R. S. Wójcikowski which suggests that combination or hybrid armour was merely an interim form during the development from scale or lamellar to mail. However, such combination armours have been evidenced from the late Arsacid/early Sasanian (It is possible Sasanian armour in such form was described by Julian the

Apostate, who mentions armour [thorax] made of steel, and parts of armour [again thorax] made of rings [krikoi]. This can suggest hybrid armour [Jul. Orat.1, 37 D—38 A]. It is worth asking why hybrid armour does not appear in Sasanian art. In authors opinion so called Sasanian "canon" may have been formed during the early Sasanian period, and so may not have been taken into account any later developments and abandon some earlier forms in armament and regalia. This same problem we have with other forms of armament and regalia, for example see: Kubik 2014: 168–169.) period, and up until the seventh to eighth centuries in Sogdiana (Table 1(3), For example: Panjikent, III: 6, VI: 1; Jakubovskij 1954: Tab. XVI, Tab. XXXV; Belenickij and Piotrovskij 1959: Tab. III, Tab VII, Tab. VIII, for the other, similar construction see also: Panjikent, VI: 55; Belenickij and Marshack 1971: Fig. 11; Azarpay et al. 1981: Fig. 45, 106; See also: Raspopova 2006: 80), where it was used alongside mail. This means that this type of armour cannot be called a transitional type. It should be emphasized that mail on the torso of the "*famous clibanarous*" graffito is very speculative because of the very poor detail on the original graffito. While rings of mail are clearly visible on the avenatail, on the torso we can only see u-shaped scratches which are not closed on the top. This style of depiction has been used in Europe to convey either scale or mail. Scales are also shown on the horse armour.

In the territory of Greater Iran in Old Nisa different forms of plates were found which dated to the Arsacid period and which were published by G. A. Pugachenkova (1966: 27–43). Several armours were similarly found in the Big Squared House. The head of excavations, M. S. Marschiev, noted that two forms of plates were used for those armours, with plates of the second type being predominant (Pilipko 2006: 264). It is interesting to note that B. A. Litvinsky was unable to give exact description of the narrow plates because they had combined together into one block (Litvinskii and Pichikian 2001: 343–344; Pilipko 2006: 264). Hence we cannot exclude the possibility that these armours from Old Nisa are some form of scale or scale-lamellar hybrid armour

(Lamellar plates found at Old Nisa were two-hole lamellas and fastened with metal clasps, similar also two hole lamellar were found at Toglok Tepe, and the numerous Palmyran depictions showing such. V. N. Pilipko suggest some similarities between armours from Old Nisa and Siberian plates found in Tobol Valley see: Pilipko 2001: 160, 316, 318, 2006: 265–268; see also: Kubik 2016: 93–96. What is interesting form of the hybrid armour composed from different form of the plates include segment-like, laminar, curved and elongated metal plates, small and long plates, etc. was found in Kirgistan in Akchij-Karasu Kurgan and belongs to Kenkol Culture see: Kozhomberdiev and Hudjakov 1987: 75–103. There also exist Sarmatian burials where armours consist of the different part of the scales, see for example: Miller 1911: 145) Further evidence for such a form of construction comes from Korea, where in the fifth to sixth Century A.D. several lamellar harnesses featured long lamellar on the abdomen and shorter lamellae on the torso.

A second graffito which was found in Dura Europos can also be classified as an example of Parthian art. It shows another possible form of hybrid armour being worn by a heavily armoured horse archer (Table 1, Block M8, Christian Building, Edifice of Tower 17, see: Goldman 1999: 30–31). M. I. Rostovtzeff described the figure as a masked heavily armoured archer whose body is protected by a tight–fitting sleeved coat of mail and a cuirass (Rostovtzeff 1933: 215–216). In fact we see armour in which the upper part (a bib protecting the chest and the sleeves) consists of a different type of armour from the lower part (abdomen and skirt).

According to the current author, it is possible that by focusing too heavily on the construction/type of armour one's viewpoint is too narrow, which in turn might lead to errors. It is possible that functionality, rather than the exact type of armour, was of greater significance for the wearer. Such an assumption might enable us to conclude that small plates and scales as well as mail might have had similar functional virtues and could, over a long period of time, replace one another. Such a view could be supported by examples of long scale coats or "scale overalls" (Term "scale

Fig. 4 Block M8, Christian building (edifice of tower 17) room 4, south wall. Dura Europos "famous clibanarius" graffiti, drawing: author

overall" firstly used in oral discussion by P. N. Skupniewicz. For so called "scale overall" see for example: Gorelik 1993: Tab. LI-31d, 32d, 318) and the famous paintings from Dura Europos synagogue which show the "Battle of Eben Ezer" (Eben-Ezer battle scene, Scenes 1 and 2, See for example: Weisman 2012: 7–9). Here armoured hoods covered with small scales were depicted. Both long scale coats and scale hoods were in time replaced by their mail equivalent. It is possible that the fragments of mail in the above mentioned sets of armour from Kuban were in fact

modifications or repairs to hybrid armour where, in place of earlier small plates, readily available pieces of mail were substituted. Such modification would not compromise the original functionality of the armours. Therefore the u-shaped scratches on the "*famous clibanarius*" may be more likely to represent scale armour on the chest of the rider and the horse barding.

The horse armour (which we suggest was added later), consists of scales and can easily be compared to the scale barding actually found at Dura Europos. These have been analyzed

thoroughly by P. N. Skupniewicz in his work on Sasanian Horse Armour. It must be pointed out that the exact construction and nature of this barding cannot definitively be reconstructed solely from the graffiti. Skupniewicz (2014: 42) suggested that the upper edge of the reinforced caparison divided it from the scale crinet. Following Pugachenkova's (1966: 36; Nikonorov 1985: 32–33.) view, he admits that mounted adversaries of the Romans, wearing tight scale armours and riding horses in similar covers as shown on Trajan's column, might not be Sarmatians but Parthians. However he actually avoids such a statement. The highly stylized representations on Trajan's column were made by artisans whose knowledge of the opponents' equipment was most likely based on oral testimonies rather than visual evidence. Based on the Khalchayan and on the late Arsacid era Tang-e Sarvak depictions of horse armour (and also keeping in mind later Sasanian horse armours), it can be affirmed that the horse armour from the "*famous clibanarius*" Dura Europos graffiti shows a one piece barding reaching no further down than to the horse knees.

5   Conclusions

The graffiti with the "*famous clibanarius*" from Dura Europos, despite its crude nature, remains an important element in the reconstruction of arms and armour of Iranian warriors during the late Arsacid period. Despite numerous controversies regarding the depiction itself, and statements about whether or not the depiction fits the Parthian "canon" (Invernizzi 2011: 189), the piece is an astounding example of vivid local traditions in the art of the Arsacid era, while sustaining all important "canons" which applied throughout the entire Arsacid realm. Comparisons with other local graffiti proves that the "*famous clibanarius*" (Fig. 4) was made by a member of the local community who was familiar with the visual principles known from parallel art works from Hatra. Here it is essential

to state that the "*famous clibanarius*" follows Iranian formulae where artisans were depicting heroes (warriors in heroic appearance). We can clearly state that it portrays a Parthian warrior and that it cannot be attributed to the Sasanian conqueror of Dura Europos. Several stages in the process of drawing this graffiti do not permit a rejection of the statement that the piece was made gradually, over some time or may even have scratched by more than one "artist".

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Investigation on Symbolic Badges in Sasanian Rock Reliefs and Stuccoes

Houshang Rostami and Shahin Aryamanesh

Abstract

Symbolic badges are important objects that made by ancient artists in various era. These Symbolic badges are consequential issues about the culture, religion, art and even political and social structures of a government and country in ancient era too. During the Sasanian period, symbolic badges further flourished with respect to the mixture of religion and policy; so that an examples of which can be seen in most of the remaining artworks like as cloth, coin, Rock Reliefs and Stuccoes from the Sasanian era that found of archaeological excavations. Investigation of symbolic badges in the Sasanian rock reliefs and stuccos is a necessity that unfortunately, has not been independently and elaborately addressed to this date. In other words, it is necessary to investigate this significant issue using archaeological and historical evidence. This research, obviously indicate that the dominant symbolic badges existing in Sasanian rock reliefs and stuccos have religious origins; these figures, although represented in numerous and diverse vegetable and animal figures, each one as a symbol is considered represents one of Zoroastrian God or Goddess.

1 Introduction

One of the ethnic and indigenous indications of every nation is relying on the achievements which are the outcome of that nation's beliefs and attitude towards the surrounding world. With a profound look at the history of the ancient people, we can perceive the fact that a huge part of every nation's beliefs and views was consisted of the gods and mythologies related to that era. Reflection of this attitude can be concretely perceived in the artworks created by that nation.

These creation and inventions are in fact, indicative of mentalities of the artists who had risen from among people; consequently, they would later cause the continuation and expansion of those arts. One of the most significant approaches for being familiar with culture, art, and beliefs which are prevalent in a society that the artworks created in which are studied, is to notice the symbolic badges employed in these art relics; this can reveal many of the hidden concepts beyond the appearance of an artwork to us.

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The Sasanian art is also among the conceptual arts replete with purposeful reliefs. This art while creating a state of ecstasy, exhilaration, cheerfulness, and reminding of a scene or object will never disarm the viewer and confront him/her with a fait accompli or a complete position. Rather, it leaves some place for a viewer's self-expression, reflection and imagination.

Some of these symbolic badges contain mythical aspect and others represent courtier, political, military, and social characters and individuals. Diversity and multiplicity of these kinds of symbolic badges are so high that it would be difficult to keep them in mind all together and find out their significance by remembering and suggesting them mentally. Symbolic badges in Sasanian stuccos and rock reliefs are highly abundant and diverse. In the following, several common and particular badges which have been rarely considered in research related to the Sasanian period are dealt with.

2 Symbolic Badges

These badges include: Lotus, Life Tree, Crescent, and knurl, that each one will be individually investigated here.

1. Lotus

Darabgerd rock relief (relief of Ardeshir I's victory) is located in 10 km from the southwest of Darab. In this scene, the main two individuals behind the king are holding a V-shaped flower which is probably, a lotus bud (Hinz 2006: 201; Soudavar 2004: 66; Ghirshman 2000: 137). This action is likely to be inspired by the Persepolis reliefs.

Another relief of this flower has been carved in the investiture ceremony of Ardeshir II in Taq-I Bustan. Here, the king is standing and two gads are seen on his both sides, one of them is Ahura Mazda who is granting the crown and the other one is Mitra is holding Barsam handle and her

Fig. 1 Taq-i Bostan, Lotus Figure under Mitra's feet in coronation assembly of Ardeshir II. *Source* Flandin and Cost (1854: 6)

Fig. 2 Bishabour, stucco frame with Lotus figure. *Source* Ghirshman (2000: the 21st tablet)

head is shining, Mitra is standing on a large lotus (Girshman 1971: 190–191). The Lotus flower in this relief is probably the influence of Koushani art on Sasanian art (Rezaeinia 2008: 32) (Fig. 1).

The stucco sample of lotus during this period has been only found in one case, i.e. in Bishabour. This quadrate piece is a plaque with 39 cm dimensions with a circular aperture in the center. Decorations around this aperture with ornaments of pentapetalous palm leaves and triplet lotus flowers form a circle located in a round frame with hollow beads (Ghirshman 2000: 201–204) (Fig. 2).

3 Semiotics and Concepts of Lotus

Lotus is a common name for a group of flowers or plants that is called Life Tree or Generation Tree in Persian. Lotus or the western rose is a flower which has existed since the beginning of creation. This flower is the symbol of light and consequently, it is the resultant of creative forces of fire, the sun, and the power of their moons and is known as the product of the sun and waters (Izadparast 2006: 59). Lotus is a global symbol as old as three thousand years B.C. which is observed in Mohenjodaro (Samanian 2005: 271).

This flower grows in water and opens with the sunrise and closes with the sunset. The amazing beauty, spiritual color and regular and multilayer petals of this flower are signs which make it as one of the most important symbols of thought and intuition of the traditional human (Bolkhari Ghahi 2006: 26).

Lotus has been considered as a sacred flower since the pre-Achaemenian periods and its figure can be seen on designed silk potteries. The relics remained of the Elamite period signifies the existence of this motif in artworks of those eras. This figure can also be observed in the architectural relics remained of the Achaemenid period that the most significant of which can be seen on the capitals of Pasargadae and Persepolis.

Role of lotus during Sasanian period can be understood from the metal dishes and stucco frames which had once adorned the buildings (Ibid: 60).

Lotus is another one of Xwarrah symbols that regarding the generation myth of the saviors of the Zoroastrian fire manifested Xwarrah in the Sasanian thought and art. Lotus flower is a protective element of the Zoroaster's Xwarrah in the depths of Kianseh Sea and due to the same reason acquired the honor of Xwarrah emergence in its form (Movahedi 2002: 125–126). In Iranian rituals, lotus is the flower of light, water and advent which has an inseparable connection with Mehr and Nahid. According to Bundahis, lotus is Anahita's flower and according to the myths, it is the very same water and lotus (Bolkhari Ghahi 2006: 9).

In Bundahis, also it is stated that, "Every flower belongs to Amschāspandān. Lotus belongs to Ābān" (Bahar 2001: 88). Among the other applications of lotus is that it was used in Iranian celebrations in Mehrgān festival that was given as precious gifts by Zoroastrian priests to the king. In the description of this celebration, it has been mentioned that, the great priest put a lotus in a small board and brought it to the king on the celebration day (Moghadam 2001: 40).

According to the mentioned points, the value and status of this flower can be understood during the Sasanian period. It had provided the

situation for attendance of this flower in artworks of this period. The stucco of lotus in Bishabour is due to the importance of this flower in the Zoroastrian religion and its significant status during the Sasanian period. Therefore, this rejects the theory that it had been merely a decorative element; rather it emphasizes its importance and position as one of the religious elements during this period as "Xwarrah". Its importance is even twice in the coronation ceremony relief of Ardeshir II in Taq-I Bostan to the extent that this flower under Mitra's feet along with other religious elements seems to manifest a religious-political assembly in support of King's kingship.

2. Life Tree

The life tree is among the old figures in the Iranian art that only one example of which can be seen in rock reliefs of Taq-i Bostan. The large arch which is a semi-circle shape arch has been constructed with the same style of royal palaces. Bases of the arch are placed on two pillars on which very delicate figures have been depicted. This figure is a tree that its regular and neat branches have been twisted around the pillar and its leaves are like acanthus leaves. On the top, it leads to a wonderful flower that according to Hartsfield, perhaps, this tree may be an instance of life tree (generation tree) which has been mentioned in various forms in Mazdist myths and narratives and has taken different names including: Gokarn Tree, Vau-I Yudh-besh which cures every illness (Christensen 2003: 478; Mousavi Haji 2008: 87; Herzfeld 2002: 326) (Fig. 3).

The stucco example of the life tree found in Susa has been discovered on a protected tablet in the Louvre Museum. This image shows rams which have climbed the tree in order to feed themselves. In this assembly, the artistic symmetry has been a little violated; a tree covered with leaves is not simply a religious symbol, and the dynamic and lively image of animals also contradicts with the common symbolic badges (Shaetis and Pope 2008: 795) (Fig. 4).

Fig. 3 Taq-i Bostan, life tree. *Source* Flandin and Cost (1854: 6)

Fig. 4 Susa, life tree. *Source* Archive of the National Museum

4 Semiotics and Concepts of Life Tree

Trees have been always considered sacred and honorable during the history, effects of this sanctity and respect can be seen among people even today. The life tree (generation tree) which

is also a holly tree is considered as a symbol of fertility and generation or a medium of goodness and blessing in the civilizations around the world. This badge, especially, in the decorative and mysterious arts of Mesopotamia has been applied since 3500 B.C. in Iran during the Sasanian period (Shams 2000: 205–206).

As it has been stated above, the most sacred tree among different nations and tribes is the "Life Tree" (Generation Tree); according to their beliefs, this tree has been grown along with the dichotomous tree of "good and bad" in the heaven. In mythologies, fruit of this tree is grape. The life tree which has been grown in the heaven or is located at the centre of the universe is the symbol of fertility and reference to the initial origin. This tree encompasses good and evil (Pourkhaleghi Chatroudi 2001: 96–97).

In the Iranian belief, the life tree grants immortality when it is known; however, it is not easy to know it. According to Schneider, the life tree is also mentioned as a pillar holding the heaven (Ibid: 101).

One of the most important abstract and symbolic badges in the Iranian art during the Sasanian period is the life tree. The extensive presence of this tree everywhere in the Iranian artworks and visual arts is noteworthy. The life tree in many of the artworks decorations remained from the Sasanian period, especially, silvery dishes, textiles and rock reliefs, has been depicted between two animals, two birds or mythical beasts in a face-to-face position. These beasts protect the tree and its fruits. In order to pick and utilize its fruit, which is the secret and elixir of longevity, one must fight with these two animals. And in the case of victory, that person would become immortal and eternal (Khazaei 2006: 47). Different types of this scene have been demonstrated since pre-historic age to the Sasanian period. Some believe that this motif is abstracted from a tree which is one of the prevalent badges in the Western Asia and can be seen in different forms on various cultural works and materials, most often, as two goats, two humans, or two fictional symmetrical creatures standing on both sides of this tree. This motif is the fictional symbol of the cosmic tree,

revitalization, and a symbol of immortality. This tree is apparently the same "Hōm tree" in the Zoroastrian religion. The origin of this tree has been the southern Mesopotamia (Sumerian civilization) and later it reaches to its most excellent form in the Babylonian, Assyria, Elam art and particularly, bronze products of Lorestan. The life tree during the Achaemenian, Parthian, Sasanian and Islamic periods can also be seen in various forms (Afrough 2010: 103; Beaucorps 1997: 13). The shape of this tree during the Islamic period has been modified based on the Islamic ideology and appears in artworks in accordance to the concept of "Touba Tree" (Khazei 2006: 47).

Among the reasons for generation of this image the existence of the innate sense of eternity in the human being's nature can be mentioned, who has been always seeking a way for his immortality. Perhaps, the tree has been chosen as a life tree because during the history, it has had important benefits and effects in human's life and has received a particular respect and honor by human being; and even in another aspect, due to the longevity of many of tree and their fertility and blessings, trees have been appreciated as a symbol of eternity. The Sasanian period also, according to the religious emphases made about the sacred tree, is no exception in this regard; and always during this period by reflecting the role of this badge in artworks including the discussed cases, its importance and status is quite clear and obvious.

3. Crescent

Crescent badge has been depicted on the rock relief of Taq-I Bostan at top of the large arch, exactly at the center of the arch, a crescent shape has been constructed whose branches are upward and have been decorated with royal ribbons (upright). In the middle part of the large arch, an upright crescent has been depicted from beneath of which light has been emitted. This is the most significant and considerable astronomical badge during the Sasanian period which belongs to crescent. As if, this arch is a big crown on top of which a crescent is located (Farhoumand Tehrani 2008: 195) (Figs. 3 and 5).

Fig. 5 Taq-i Bostan, Crescent badge. *Source* Flandin and Cost (1854: 6)
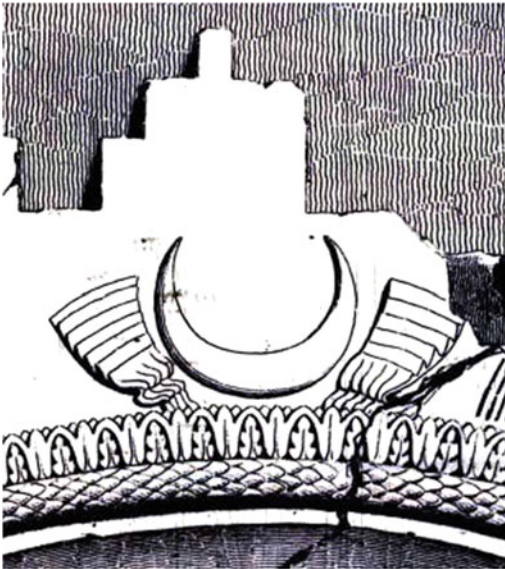

Fig. 6 Haji abad, stucco piece with Crescent motif. *Source* Archive of the National Museum

The stucco piece found in Hajiabad site is among the considerable pieces. This stucco regarding its shape is indeed divided into two parts. The lower part is rectangular, constitutes two right angle steps which is extended in the entire piece. The upper part of the piece which is located on the second step with lower dimensions includes two prominences in the lower part that one of them is broken and at their centers, a wide rectangular bar is located. Above this bar, there is a horn- like part with a round end that resembles a crescent (Chehri 1997: 159–160) (Fig. 6).

5 Semiotics and Concepts of Crescent

The motif of crescent in Mesopotamia has existed since the pre-historic periods till the Babylonian period; and at least, since the ancient Babylonian period, it has been recognized as a symbol of God, i.e. "Sin" (Black and Green 2004: 94).

In the early Iranian cultures and the Elam region, crescent should have had the first rank; because as night contrasts day, also the moon has a contrasting nature with the sun. The sun brings light and heat, while the moon sends the rain. Correlation of the moon and rain had been deeply institutionalized in folklore of many nations; this idea has been mixed with various superstitions about agriculture and gardening; for instance, there are old proverbs which say at what steps, which seeds must be planted and these beliefs and superstitions are continued. In Manichaeism about regular transformation of the moon in the sky, it is has been mentioned that the most benevolent star (which is noteworthy) that observes the release and ascending of light particles which are humans' souls. The idea that bull must be considered as the embodiment of crescent has been almost inevitable, since its horns have in fact an identity similar to the crescent. And in Avestâ, crescent and bull are created by God and they are practically synonymous and can be replaced with each other because bull is God-created and life-giving (Ackerman 2008: 1045).

Crescent figure during the Sasanian period was typically used on the fabric of kings' clothing, their crown, or on the clothing of the

individuals who were closed to them such as queens. The moon is a symbol of greatness and spiritual light (Farboud and Jaafarpour 2007: 70).

Moon is called "Mâvangah" in Avestâ. Yašt is also related to the moon, and invocation has been also narrated by Mah Yašt. The twelfth day of each month is attributed to "Mâh" (Oshideri 1999: 424). The moon is called the constituent of animals' semen and races. Cited in Bundahisn, the moon sphere is the protector of animals and beasts' semen (Ibid: 425). In Khorda Avesta, praise for the god of moon has been also stated as follows, "Thanks to the Creator who created Ormazd, thou are the beautiful moon and a (light) roof for night light of the existence from Bundahis to praise the god. To grow and reduce inside the moon in fifteen days and decrease fifteen nights and as you progress to increase all Ourmazd's creatures and more obvious, and water of lakes, seas, and also rivers, springs and many golden plants. He created Ormazd Beh from dignity and (comfort), goodness, and abundance and your venerability.

He has given you benefit-granting, and healing features (Khordeh Avesta 2003: 169–171). In Zâd-Sparam's Selections also, the important role of the moon god in creation of the first bull and cow has been mentioned. Some statements about the beginning of creation and Ourmazd battle with Demon and killing of the God-created bull whose semen would be entrusted to the moon god from which the first bull and cow were created have been mentioned (Zadesperm's Selections 1987: 13).

The moon in addition to mythical and religious role played in the ancient Iran and Zoroastrianism and being known and of the gods of this religion, has been worshiped and respected before the Zoroastrianism in Iran and Mesopotamia; and in the creation story, it has been mentioned as the symbol of fertility, greatness, and dignity. Existence of this symbol in artworks of this period can be assumed as the continuance of the Sasanian rulers' approach to show their strong relationship with the supernatural world that gave a divine aspect to their kingship as much as possible.

4. Knurl

Jag is one of the most commonly used and considerable badges in the Iranian art of the Sasanian periods. In Taq-I Bostan, in the top furthermost of the large arch, some knurls are observed reminding the Median and Achaemenian buildings, which are abundantly seen in Persepolis (Movahedi 2002: 90) (Fig. 5). The crown of Ahuramazda who is granting the kingship diadem or ring to the Sasanian King in rock reliefs has a knurl shape; an example of which can be observed in Naqsh-I Rajab and Naqsh-I Rostam in the diadem granting assembly of Ardeshir I where Ahuramazda is standing in front of Ardeshir with a knurl crown (Hinz 2006: 171) (Fig. 7).

Another considerable example of this badge can be seen among the stuccos collection of Bishabour site where four stucco knurls with 30 cm high have been discovered from the back mosaic hall of Bishabour. Each of these shelters in all its sides has three stairs or floors above their widest part and a flat margin has

Fig. 7 Naqsh-i Rostam, Knurl Crown of Ahura Mazda. *Source* Flandin and Cost (1854: 182)

encompassed the whole part of these pieces (Ghirshman 2000: 209) (Fig. 8).

6 Semiotics and Concepts of Knurl

However, the origin of knurls should be attributed to knurl shelters during the Assyrian eras. Moreover, existence of these knurls in imperial crowns of the Sasanian period suggests that they are still felt as effective symbols of a supporting force. Perhaps, using this design has had another meaning simply apart from decoration and it has been the auspicious aspect and support of the mentioned decoration (Pordada 2536: 308–309).

On the upper edge on the most Sasanian monuments, also some knurls can be seen. These knurls explicitly remind us the knurl-shape shelters in fortifications and castle which can be somehow derived from ridge of mountain ranges that protect the human communities from the damage of natural disasters and aggressive enemies' invasions like a high and inaccessible wall. Under the support of such knurls, one can feel

Fig. 8 Bishabour, Knurl stucco piece. *Source* Archive of the National Museum

secure and would be protected from enemies' range and can be dominant over them. Existence of knurls on kings' crown can also be considered as an effective symbol of an inaccessible supporting force (Movahedi 2002: 90).

Upham Pope, argues about the knurls in Persepolis (for example, the southern balcony of Hadish Palace, and the staircases of the northern, southern, and eastern porticos of Apadana Palace) that these knurls are the symbols of mountains and valleys and the reason has been the importance of agriculture among the Achaemenids (Saeedi 2001: 37).

With respect to the mentioned issues, knurl has always aimed at demonstrating a particular concept along with other symbolic badges, among which knurl reliefs in Bishabour can be mentioned; here, a palm with small wings, which is a symbol of the divine Xwarrah, is seen inside a knurl. In addition to this case, the rock relief example is more considerable; in Taq-I Bostan, knurl beside the moon god, life tree, and the goddess, Nikeh have been presented in the collection of investiture ceremony of Pirouz I performed by Ahura Mazda in presence of Anahita and the knurl-shape hat of Ahura Mazda opens the door for speculation on the importance of this symbol in the Zoroastrianism. These issues cause us to assume that knurl has been an important symbol and divine badge in Zoroastrianism reflected in different forms in the art of historical periods from Achaemenian to the Sasanian periods. In other words, presence of this symbol is to represent the support of Ahuramazda from kings and the divine territory.

7 Conclusions

In this research, it seems that most of badges employed in the Sasanian rock reliefs and stuccos have religious themes driven from the dominant religion during the Sasanian era which have had an undeniable effect on creation of the symbols in this period. Sasanians by creating religious symbols in their artworks sought to legitimize their kingdom and represent it to be a divine kingship; this was done through

embodiment of Zoroastrian Gods and Goddesses and their motifs. Sasanian kings desired to suggest the important issue that their kingdom were a celestial trust granted by gods to them. Among the symbols applied in rock reliefs and stuccos, figures of some animals such as hog and lion, that each one represents one of the Gods of the Zoroastrian religion, given the different themes of these rock reliefs and stuccos indicate a particular concept and symbol that being in any forms, they have been inclined towards the will and desire of Sasanian king.

Knurl as another one of the symbolic badges, has religious concept by itself, examples of which can be seen on rock reliefs, on Ahura Mazda's crown and on the big arch of Taq-i Bostan. The influence of the other nations including Greece and Rome and Mesopotamia on Sasanian rock reliefs and stuccos is evident which have had a considerable reflection. Given the dynamic art during the Sasanian era, these motifs have been accepted during these era and with respect to the power of the Iranian indigenous art in the Sasanian art and the existing similarities they have been merged and their reflection can be observed in the art of this period. These motifs should be considered as an indication of the dynamicity of these era rather than blind Imitation; in other words, it has taken a specific form by being mixed with the indigenous art. At last, all the other common motifs such as Simurgh and Anahita as other above-mentioned badges have religious themes and the entire attempts of the painters have been aimed at representing a divine manifestation of the King to disarm the viewer against the religious and worldly awesomeness and greatness of the king and to curtsy in front of these God's representatives.

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Landscape Archaeology of Abdanan in the Sasanian Period

Hossein Habibi and Yaqoub Mohammadifar

Abstract

Studies on Mesopotamia, the Central Zagros and Southwestern Iran have shown an increase of archaeological sites number in the Sasanian period. Abdanan region, at a strategic situation between these three cultural zones, is a part of a trans-regional system that according to the results of high density archaeological surveys, shows a whole with uniform characteristics. In the present research, by using the Arc GIS program on the basis of the landscape archaeology perspective, impacts of various environmental-cultural variables on the patterns of archaeological sites spatial distribution are studied. Accordingly, it is specified that beside the predominant dendritic distributional model of the central plain and mountainous parts of Abdanan, the Sasanian sites in the eastern part of the region represent a distinctive clustery pattern. This is an outcome of the compound economy and dimorphic society of the under-study region in Sasanian times which besides the predominant culture with its main base in the vast settlements of the central plain, hosted a sub-culture with pastoral nomadic subsistence strategy at its eastern part. According to the insight of the complicated adaptive systems (CAS) model, Abdanan in the Sasanian period was a part of a trans-regional system 'at the edge of chaos' which with high levels of population and pressure on land resources, was at a high level of information processing and the border between stability and chaos. Confronting the external disturbance, this system experienced loosing of correlation among its high levels and with change turned into the transitional phase of post-Sasanian times characterised by population and fiscal decline.

1 Introduction

The purpose of the present article is to study the human—environment interaction in the Abdanan region of the Sasanian period. After introducing the theoretical setting and methodology of the research, human and natural geography of Abdanan and reviewing the literature of archaeological studies in the under-study region, we will use the Arc GIS program to evaluate the quality of relationship between different environmental variables and Sasanian sites' location,

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and to recognize the specific spatial models of the regional distribution of these places. The points why/how the settlements are exploited and the subsistence strategies behind them are shaped are focal in this research which has been based on the data of 106 Sasanian sites in the Abdanan. It is noteworthy that there are sites that formed a single complex point in the research, to prevent complexion of spatial analysis.[1] Furthermore, patterns of spatial analysis of different types of sites, and concentration of each type will be studied. Notable point that no geomorphological information and aerial photography from the under-study region was available.

2 Regional Settlement Pattern Studies in the Landscape Archaeology Setting

Study of landscape goes back to the German geography of the nineteenth century and its discussions about landschaft.[2] This geography was limited to the physical geography in which human behaviour mostly was being understood as a phenomenon which is extensively under influence of natural landscape (Kluiving et al. 2012: 1). In *Dictionary for Geography* it is discussed that landscape archaeology was started with the works of P. Vidal de la Blache in France and has been developed as a part of regional approach to this subject (Monkhouse 1970: 204). Also, it was in this period which the school of cultural geography of Berkley in the United States was shaped and by this means the concept of cultural landscape was introduced. The idea which implies the point that most of the characteristics of a landscape form through interference of human. Intellectual bases of the new perspectives of landscape in archaeology, have their roots back to the 1920s (Anschuetz et al. 2001: 157). In this century, landscape archaeology which was in debt to environmental approach for

its appearance, incorporated some of particularities of this point of view in the landscape research, among which we can mention the extensive interdisciplinary approach towards studying the human—environment interactions. Environmental archaeologists, with their hybrid opinion in understanding of biology of human societies, have supposed human actions in their natural settings. By collaboration with various disciplines, they have used diverse techniques and interpretations of biological and earth sciences, and geophysics to study relationship between individuals and their environment (Denham 2008: 468; Reitz et al. 2013: 3–10). In the same manner, archaeological studies with landscape scale corporate the works of researchers with different expertise in the three categories of biological, physical, and cultural (Burger et al. 2008). This is one of the special potentialities of this domain which is gained through imported concepts and models from vast and sometimes different levels of scientific humanities disciplines and combining them into a single framework towards human societies (Zedeño 2008: 210–211; Kowalesky 2008: 251).[3] On the other hand, hybrid tendency of this approach embraced different schools of thought. Origins of different understandings of landscape archaeology goes back to the unbridged gaps in theoretical basis of the social sciences, when it comes to the quality of interaction between human groups and environment in the last two centuries. Friederich Ratzel, the geographer, discussed that the distinction between different human groups is the result of impacts, each of them have received from their environment. But, for Emile Durkheim who understood society as the collective conscious outcome of structures of common law, human relationship with natural environment has not such a significance (Anschuetz et al. 2001: 158). Processualist viewpoint of New Archaeologists has been based under the influence of the positivistic ideas of the 1960s–70s geography (Ibid.: 146). Perspective of

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[1]In five complexes which contained a settlement and castle or a settlement, castle and fire-temple.

[2]For its definition see: Monkhouse (1970: 205), Johnston (1981: 183–184), Olwig (1996).

[3]For some examples of multi-disciplinary approaches in this domain see: French (2003), Compana and Piro (2009), Carvalho et al. (2013).

the 1980s cultural geography which had focused on the visual aspects and landscapes as the observation mode, had an important role in the formation of post-processual opinion (Widgren 2012: 121). Landscape, in the current view, has been assumed as constructed through social experience which, more than environmental conditions, is under the impact of politics. Accordingly, in the research projects based on this perspective, beyond the process of human adaptation to ecosystem and by borrowing some concepts from human philosophies, methods are adopted to explore human values and beliefs (Anschuetz et al. 2001: 1–2). Besides the visions of philosophers such as Kant and Heidegger towards space and ideas of phenomenalism in philosophy, creative geography[4] of the early twentieth century was a source for the human-based phenomenological approach[5] in landscape archaeology.[6]

From the 1960s which archaeologists have started to study landscape so far, two main movements have been formed in this domain which according to their epistemologies, each of which posseses some methods to reach specific purposes. The first one, which is maintained by processualists, basically has an ecological functionalist viewpoint, that understands environment and economy as the main causes behind the human actions it tries to do countable research and gain the potential predictability in them, and usually involves with studies of settlement pattern, settlement models, and regional-scale insights with methodological advances in spatial analyses, Geographic Information Systems (GIS) and non-site-based applications. The second movement, as mentioned above, considers landscape as a culturally constructed

organization which created cognition and memory, and post-processual archaeologists like Christopher Tilley are its proponents (Duke 2008: 279; Clark and Scheiber 2008: 6). Therefore, an interesting specification of landscape archaeology is that it has embraced either positivistic processual archaeology or post-modern ideas of post-processualism and has provided a setting in which researchers with different intellectual backgrounds can work together (Wilkinson 2004: 334–335; Anschuetz et al. 2001: 176). Noteworthy that still there is no consensus concerning how landscape archaeology should be seen and defined. For example, authors place different levels of emphasis on natural aspects such as ecological, geomorphological, hydrological and on the cultural ones (e.g. technological, organizational, and ideological aspects of human environment) and (Ibid.: 158) according to the different definitions of the concept of space, provide different standpoints on spatial analysis (Dobrez 2009: 5; Anschuetz et al. 2001: 198; Conolly and Lake 2006: 3–4). When it comes to the meaning of landscape, one can see a similar situation in the social sciences, and the only notable agreement has been on the mutual relationship between human and its surrounding area (Ibid.: 3–4). However, the definition of Wilkinson (2004: 334) of landscape and archaeology of it seems to be comprehensive and firm. Nevertheless it emphasizes on the cultural factors, but it basically supposes landscape as the compound product of natural environment and cultural variables. Although he considers the purpose of landscape archaeology as the study of formation and management of landscape through economic, social, religious, symbolic or cultural processes, but the role of landscape in construction of myths and history, as well in the formation of human behavior is acknowledged, too.

Landscape archaeology has not a long history. This term had probably mentioned for the first time in the mid-1970s, but until the mid-1980s did not become common (David and Thomas 2008a: 27). Nonetheless, the development of landscape archaeology in the second half of the twentieth century has been one of the most exciting and most dynamic progresses of the

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[4]Gestaltende Geographie raised from Lanschaften-kunde (landscape sciences) of German geography of the late nineteenth century which dealt with sensational impressions of environment and people.

[5]See: Tilley (2008), Johnson (2007: 122), McFadyn (2008: 307).

[6]See: Hassan (2004: 318). For problems of the phenomenological approach in landscape archaeology See: Burger et al. (2008: 206–208), Mohammadifar and Habibi (unpub.).

disciplines' history (Darvill 2008: 68).[7] Nowadays, landscape history has a focal role in politics and research on environmental settings and mutual human impacts with them in the global level. For decades, landscape archaeology provided a framework for archaeologists to recognize the relationships between different archaeological sites of the same period. Furthermore, this perspective has the potentiality to do research on the transitions in temporally/spatially large scales. Landscape can be understood as a repertoire of resources which brings either capabilities or limits for human societies. In the same vein, spatial inter-relations between individuals, soil, aquatic and raw material resources can be considered (David and Thomas 2008a: 25). Landscape paradigm has the potentiality of answering some of the problems which archaeology is currently facing with.[8] Now, it has relatively been a long time since when archaeologists noticed the task of shifting the focus from a single site to the scale of questions addressing cultural transformations and regional variation. Since the 1960s, various distributional approaches of non-site, off-site, and siteless in landscape archaeology have been appeared in which it is supposed that human behaviour take place throughout landscape and archaeological material has been distributed in a more or less continuous way, but with different organization and intensity (Richards 2008: 551–552; Gaffeny and van Leusen 1995).[9] Based on these approaches it has been possible to investigate the activities beyond the scale of site-based limited

activities among which we can mention regional socio-economic processes, agro-pastoral subsistence strategies concentrated in the rural areas, and evolutionarily cultural procedures. Landscape viewpoint provides cultural-historical frameworks to evaluate and interpret spatial and temporal varieties in the organizational structure of material traces. Offering promises of empirical observation and objective evaluation, this standpoint proposes an action plan for the setting in which different researchers with various subjects will be able to contribute collectively in order to construct a more comprehensive understanding of patterns of adaptation and cultural change (Anschuetz et al. 2001: 161–162).

'Settlement patterns broadly are the regularities formed by the distributions of multiple places where people lived or carried out activities, including regularities in the relations of these places and activities to each other and to other features of the environment. These places, often but not always called sites, could be places of temporary or permanent habitation and also places of other functions (rock art, fields, forts)' (Kowalewsky 2008: 226–227). Initial meaning of settlement patterns comes from the studies carried out in the 1930s cultural ecology in Britain. Introduction of regional settlement pattern studies in archaeology in the late 1940s and early 1950s has been the outcome of these primary distributional studies which have resulted in the vast reception of ecosystem concepts and insights of the systems theory, entered by cultural anthropologists, geographers and ecologists to the archaeological literature (Anschuetz et al. 2001: 168–174). Settlement patterns are distinct from the settlement systems. These regional patterns are the static environmental arrays of archaeological evidence which are experimentally recognizable, but the settlement systems are the dynamic settlement processes behind the patterns which are connected to human behaviour and cultural relationships (Kowalewsky 2008: 226; Banning 2002: 156; Duffy 2015: 85). Also, spatial analysis is either the pattern with which settlements, buildings or artifacts distributed through space or the ways by which and based on the historical associations, formation

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[7]See: David and Thomas (2008b), Kluiving et al. (2012), Strang (2008a: 51–52), Johnson (2007) for history, different definitions and schools of landscape archaeology; Aston (2002) for English school in landscape archaeology; Kowalewsky (2008: 242–43), Barker et al. (2006) for using the regional scale spatial analysis in studying different empires; Anschuetz et al. (2001), Fleming (2006) for landscape archaeology from postprocessual perspective; Baugher and Spencer-Wood (2010) for gender analysis of power in a feminist framework of landscape archaeology.

[8]See: Wilkinson (2004: 341, 2000: 226) for exciting capabilities of landscape archaeology in Near East.

[9]See: Wilkinson (1982, 1989) for some cases of successful research based on this approach.

processes, movements of people, material and information among them, they are connected together (Banning 2002: 155). In spatial analysis of landscape archaeology, usually by means of Geographic Information Systems, it is tried to recognize the special spatial structure of regional settlement patterns. A Geographic Information System (GIS) is a computer-based program which is employed for collecting, managing, integrating, visualizing, and analyzing geographically referenced information (Conolly 2008: 583). This technology, in particular, has opened new avenues for comprehending and interpreting land and resource use at anticipated scales (Zedeño 2008: 211) and offer a host of analytical possibility for investigating the spatial organization of culture and human-environment relationships (37. Conolly and Lake 2006: 31.). The use of GIS in archaeology began in the 1980s, when it became clear that it was particularly useful for recording and analysing the types of spatial information generated by archaeologists (Winterbottom and Long 2006: 1356–1357). Through the 1990s and the new millennium, archaeological GIS entered a more self-reflective and critical phase that has addressed many concerns raised about its contribution to knowledge (Conolly 2008: 584). In recent years, archaeology through the use of satellite images to map settlement systems within their environment, and their analysis using GIS has impressively progressed (Wilkinson 2000: 221). With the widespread adoption of GIS systems, and techniques of dynamic modelling, we may witness greater integration of methodologies, so that archeologists will be able to work within a more uniform framework of analysis. Geographical model-based paradigms within GIS packages are providing archaeologists with a new set of quantitative tools for research of spatial patterns at macro- and microscales (Anschuetz et al. 2001: 168–170). Spatial technology gives us the tools to explore landscape-based approaches to archaeological study. It allows sites and artifacts to be considered in a wider context. It also provides the opportunity to explore human interactions with the wider environment. The use of GIS within landscape archaeology research has led to some interesting insights into human-landscape interaction (Winterbottom and Long 2006: 1356). The main types of questions that can be answered, using GIS, are diverse and related to these issues: location, condition, trend, routing, pattern, and modelling (Conolly and Lake 2006: Table 1.1, 2). Nevertheless, in the recent years, criticisms against the problem of the models of environmental determinism (ED) approach in the research projects which use new technologies such as GIS, have been expressed, but proponents of the usage of these tools have done reforms and provided proper answers for those concerns (Gaffeny and van Leusen 1995; Banning 2002: 10).

3 Natural Geography of Abdanan County

Abdanan, as a county of Ilam province is located in the west of the folded Central Zagros mountains, between 31° 9′ N and 47°59′ to 47° 20′ E (Salavarzi-zade 2002: 91). Abdanan is an inter-montane plain with 2617 km^2 area which consists of three districts of Markazi—the central, Sarab-e Bagh, and Mourmouri and its neighboring areas are Darre-shahr County to the north and east, Deh-Luran County to the west in Ilam province, and Andimeshk County, south, in Khuzestan province and Poldokhtar, southeast, in Lorestan province (Fig. 1). This region is situated between the mountains of Kabir-kooh to the north and east, Dinar-kooh and Siah-kooh and Dalpari to the west and south. Another important geographical characteristic of this region is that it is bordered by the lowlands of Deh-Luran and Khuzestan from the west and south. According to this situation, we face to two different types of climate in Abdanan. The northern, northwestern, and western areas of the county are mountainous and surround the major part of the region. This part, with the average elevation of 1500 m from the sea level, has a mountainous climate with the average annual precipitation of 400 mm and Zagros steppe vegetation in the montane forests and pasturage lands. On the other hand, the eastern and southeastern areas of the region are

Fig. 1 Location of Abdanan County on the map of Ilam Province. After: Javanmardzadeh (2010, Fig. 3)

included of the alluvial plains such as Mour-mouri, Kalat and Moulab which without any geographical barrier are connected to the Khuzistan plain and through Dinar-kooh mountain to Deh-Luran and consequently southern Mesopotamia. Located at the parallel latitude lines of lowlands, each of these plains, with an elevation range lower than 300 m from the sea level, has a dry climate with the average annual precipitation around 200 mm and a dry steppe vegetation (Abdollahi and Sadeghi-Rad 2010: 21–31; Moradi 2005: 2).

Concerning the period which of our focus , the notable point is that we have no evidence of climate change in the Sasanian period Zagros and beyond some small-scale variations of climate occurred continually during historical times, no overall change has happened in the climate of this regions within the last 2500 years. Van Zeist concludes that after about 5500 BP, the climate may have shown minor fluctuations but no major changes (Van Zeist and Wright 1963; Van Zeist 1967; Van Zeist et al. 1968; Kuniholm 1990). Also, modern vegetation patterns in the Near

East have been fairly stable for about 4000 years (Miller 2004: 136). Additionally, before 300 B. C., modern sea level in the depression in front of the folded and uplifted outer Zagros fixed and the Persian Gulf formed (Wright and Neely 2010: 2). According to the studies of Gasche (Gasche 2005, 2007), we know that the south of Khuzestan plain was not populated until the late half of the first millennium B.C. It was by then which the Persian Gulf shore line went backward to the place it is today. Noteworthy that the recent research on the Karkhe River has clearly indicated human influences on the Late Holocene shifts of this river (Heyvaert et al. 2012). Also, it has been noticed that the modern irrigation measures utilize old drainage patterns. Scholars have not exclusively studied the small-scale climate variations of historical times, yet. Notwithstanding, based on the evidences for the Sasanian period imperial investment in the irrigation system and construction of water canals in the alluvial plains of the southwest Iran (Wenke 1987; Heyvaert et al. 2012), and Diyala (Adams 1981), and Hamrin (Kim 1991) in Mesopotamia, on some rivers such as the Karun, Karkhe, Jarahi, Tigris and Euphrates, we can say that small-scale climate variation in these regions in the Sasanian period is probable. But, as such data is not available about the Central Zagros region, we cannot consider the mentioned conjecture for this region.

4 Human and Historical Geography of Abdanan

Ilam province is a part of the region that was called Hossein-Abad-e Posht-kooh until 1935. Posht-kooh region was bordered easterly by Lorestan and Khuzestan, southerly by Khuzestan, westerly by Iraq, and from north by Kermanshah (Shishegar 2005). In 1928, initial core of Abdanan city, as a consequence of the plan of nomads' compulsory sedentarization[10],

formed. From the ethnic point of view, its population consists of Lor, Lak and Kurd groups (Abdollahi and Sadeghi-Rad 2010). Concerning the historical geography, we have to mention that there is not many information about the pre-Sasanian periods of the region. Although no written documents related to the Elam civilization is acquired from the Abdanan county, but we are informed of that this region has been a part of the Elam territory (Potts 2016: 14–15). The location of the place, named as URU*Aki in the Mesopotamian written documents of the third millennium B.C., is recognized by some scholars in Deh-Luran, in general, and by Elizabeth Carter as Musiyan site, in particular (Michaelowsky et al. 2010: 105–108). Also, de Miroschedji suggested that the Neo-Elamite Bit-Burnaki, mentioned in the Babylonian Chronicle, should be considered around Deh-Luran (Potts 2016: 263). In the Achaemenid period, the land northwest of Susa —modern Lorestan and Posht-kooh—was Cissia, the land of the Cassai assumed to be the descendants of the Cassites. However, this area had not a significant role in the politics of theAchaemenid authorities (Michaelowsky et al. 2010: 111). The association of this region with Elam is attested as late as c. A.D. 900 in the Syriac codex 354 in the Paris's Bibliothèque nationale, and in the table of Elias of Damascus, where besides Susa, Shustar, and Ahvaz, Mehraqan-Qadaq is mentioned as a part of the ecclesiastical province of Elam (Potts 2016: 425). In the Sasanian era , the area which is nowadays Ilam province was a part of the important region of Pahle. In the early Islamic period, Ilam divided into two separate regions. The northern one, with its center in Shirvan, was called as Maspazan and the western region, with its center in the Seymare Dareshahr, was named Mehraqan-Qadaq. Historical documents of this period, mentioning these regions, contain some information about their climate, geographical and ethnic characteristics (Abi-Ya'qub 1977: 43–44), alongside the accounts of the conquest of these regions by the Muslim Arabs (Al-Balazeri 1968: 125–126).

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[10]See: Amanollahi-Baharvand (1989: 232–253) for a succinct description of this plan and its consequences for the nomadic tribes of Iran.

5 Earlier Research

Between years of 2000 to 2010, six seasons of archaeological surveys has been conducted in Abdanan County.[11] Meanwhile, apart from the articles about the Julian fire-temple (Mohammadifar and Motarjem 2012) and Posht-qal'e castle (Sadeghi-Rad and Zargoush 2015), no archaeological information has been published about this region. But in 2014, given the archaeological data acquired from the prior systematic total coverage surveys carried out in high level of intensity in disposal, we led a structural survey focusing on the spatial distribution of the Sasanian period material culture in Abdanan.

6 Settlement Condition of Abdanan in the Sasanian Period

As it is mentioned above, the purpose of this research is to study the quality of distribution of archaeological material in the Abdanan county, with the focus on the Sasanian period. To do so, besides the understanding of cultural specifications of the under-study region in this period, we have to analysis the human-environment interaction (Anschuetz et al. 2001: 188–189). Accordingly, we will evaluate the quantity of the relationship between settlement patterns and different environmental variables. The foundation of the studies that are aimed to identify the patterns between sites and environmental zones and land use, are based on the hypothesis that people prefer their settlements to be as close as it is possible to the most important resources in their subsistence strategies (Banning 2002: 32). The variables under examination in the present research are distance and position of the sites to roads, rivers, and nearby neighbours, elevation ranges from the sea level, land use, vegetation and erosion condition of the soil which archaeological sites are located in, as well as the climate types which affected them.

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[11]Motarjem and Mohammadifar (2000), Mohammadifar and Motarjem (2001), Moradi (2005), Ahmadi (2008), Javanmardzadeh (2010), Abdollahi and Sadeghi-Rad (2010).

7 Distance to Roads

Concerning this variable, sites are divided into three categories. Accordingly, 11.6% of the sites are located in the zone of less than 500 m distance, and 37.7% and 50.7% of them are situated in the distance zone of between 500–1000 m, and between 1000–1500 m, respectively (Fig. 2).

Path modelling is a subject that has proved to be one of the most challenging research topics within spatial analysis in archaeology. Over the past decade, a considerable progress in this subject has been made. But, the use of path modelling in landscape archaeological research is still relatively limited (Polla and Verhagen 2014: 3). However, study of roads and the quality of exploitation of natural passageways have a considerable role in spatial analyses. As roads provide the opportunity of socio-economic relationships between different human groups, in a way, they either reflect the determinism of different ecosystems or the struggle of human to overcome them (Khosrowzadeh and Habibi 2015: 107). Movement constitutes landscape; it is an essential act of weaving places into the web of landscape, making it real for the people themselves. People also carry objects, moving them into new positional and relational contexts with other things, and they create new material encounters and new material traces through movement (Mlekuz 2010: 5). Today, the majority of GIS-based network analyses concern roads network and it is tried to answer the questions about network structure or typology, the location of particular facilities—usually sites—on the network, and the routing of information, goods or people through networks (Conolly and Lake 2006: 237–239). Additionally, archaeological surveys provide important insights into the debate over the crucial roles of trade and communications in the development of early states (Wilkinson 2000: 240). This point receives more significance in the spatial/temporal horizons of under study in the present research. According to historical documents (Ebn-Khordadbeh 1992: 24–63; Abi-Ya'qub 1977: 43–44) and the geographical situation of this region, we are aware of that one of the most important linking roads
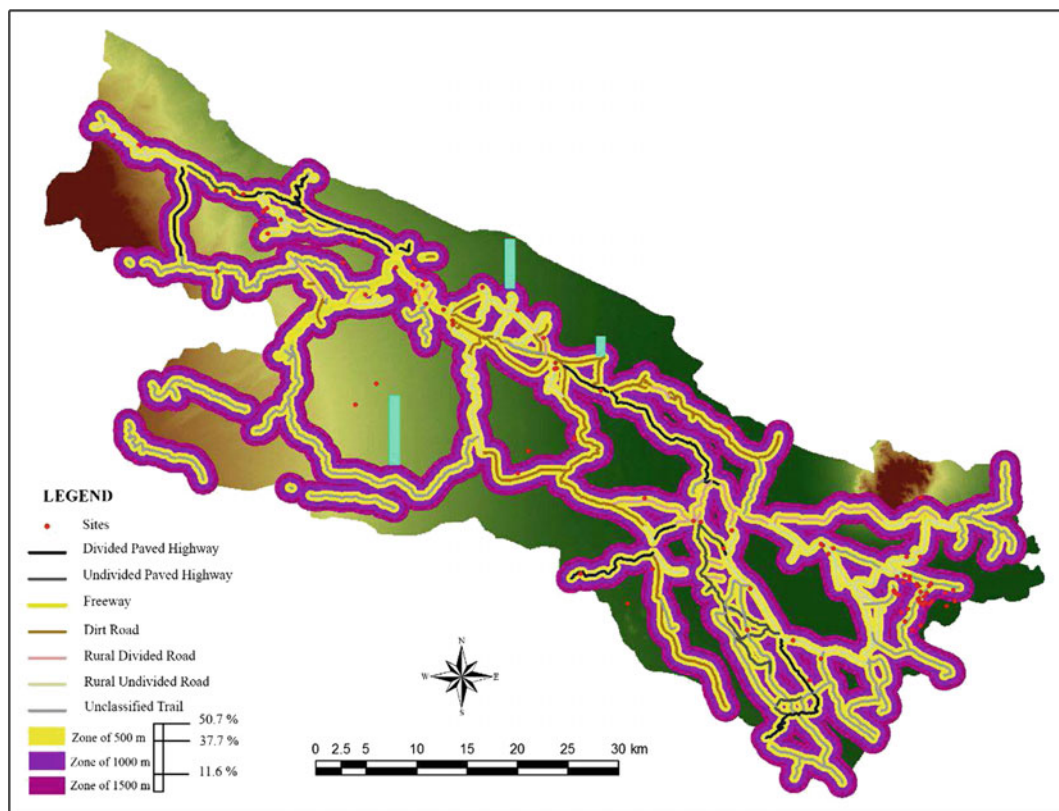
Fig. 2 Ratio of sites positions and their relations to the known roads

between Mesopotamia and the Central Zagros regions and consequently Iranian Central Plateau has passed through the Abdanan region which hosts some of the the infrequent passable passageways through Kabir-kooh Mountain. Abdanan situation in the first great fold of Zagros, after Jebel Hamrin and to the east of Mesopotamia, could not be overlooked by the Sasanian King of Kings. The most important border of this empire, commercially and politically, was the western one. Therefore, besides all supposedly regional functions, here one can assume the role of Abdanan routes of this period in an inter-regional context.

8 Distance to Rivers

In this section we discuss the distance of the archaeological sites to rivers, under three categories of sites with the distance of less than 500 m, between 500–100, and 1000–1500 m

which include 10.5, 41.7, and 47.7% of them, respectively (Fig. 3).

In the recent years, water has turned to an important subject in landscape archaeology. As an inseparable part of any landscape, even dry, water is fundamental for human life and any kind of human—environment interaction. Because water is the vessels' blood of any organic organism and essential for any kind of material production. Possession and control of water resources are usually taken as the main symbols for monopolization, democracy and fair distribution of resources. Water politics has been under consideration in the social sciences, for a long time. This indicates the role of this environmental variable in power distribution and its influence on specific groups (Strang 2008b: 123). Water can be assumed as an important factor in formation of dendritic models of sites spatial distribution in which this element act as a cause behind the establishment of social hierarchy
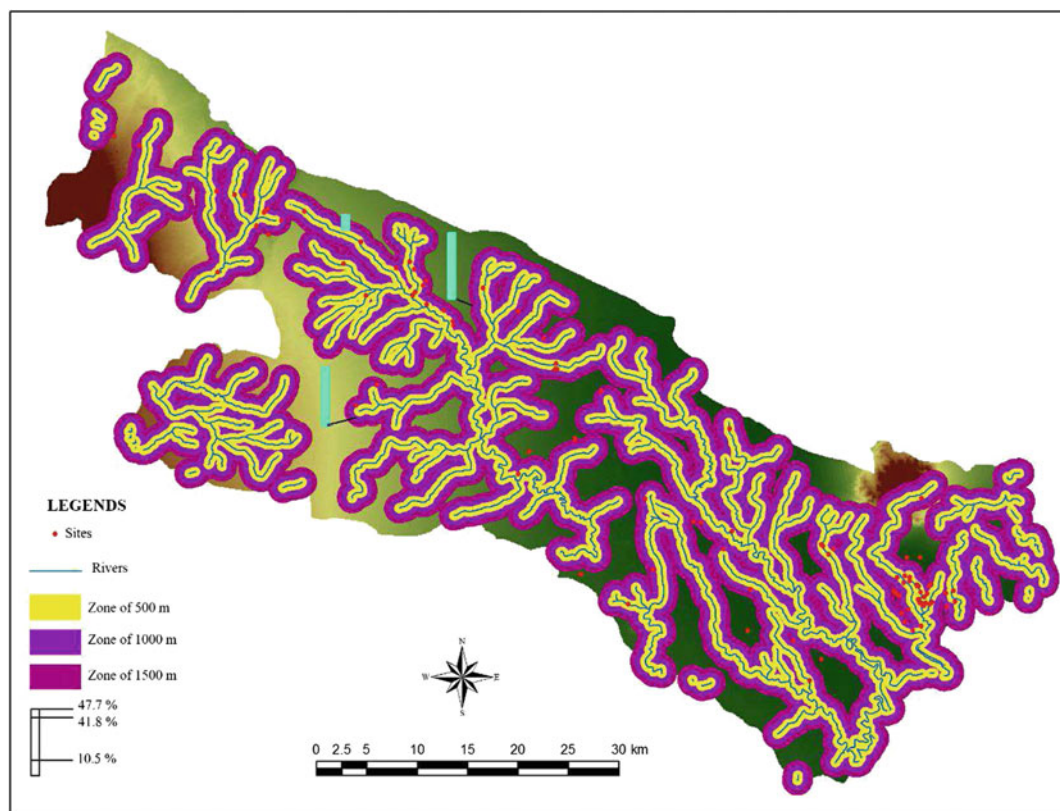
Fig. 3 Ratio of sites positions and their relations to the known rivers

(Banning 2002: 161–163). Hence, study of water resources in ecosystems, according to their undeniable impact on all aspects of human life, is inevitable. In the recent years, this emphasis is followed by evaluation of this environmental factor in the regional spatial analyses.[12] Regarding water resources of the under-study region, we have to mention that according to its high numbers of rivers and springs, Abdanan county is one of the richest regions of Ilam province. The name of this county which means *water supply*, literally, conveys this meaning, too. Furthermore, we have to recall that archaeological evidence in the neighbouring area of Deh-Luran has shown the long history of activities on management of water and use of canals from Choga-Mami transitional period (Wilkinson 2000: 251). Specially the available data about imperial investment on the irrigation system and

construction of canals in the neighbouring areas of southwest Iran and southern Mesopotamia show more attention to water management in this period on a huge scale. Therefore, despite the fact that we have no archaeological data which implies such activities in the Sasanian period Abdanan, according to the above-mentioned evidences from the larger region around Abdanan, one cannot rule out the possibility of the same condition for the under-study region. Probably, a more concentrated research design, aimed at studying these inter-site activities will result to find similar data in Abdanan.

9 Sites' Elevation from the Sea Level

According to this factor, the characteristic of relationship between the location of Sasanian sites and their elevation from the sea level is shown in two

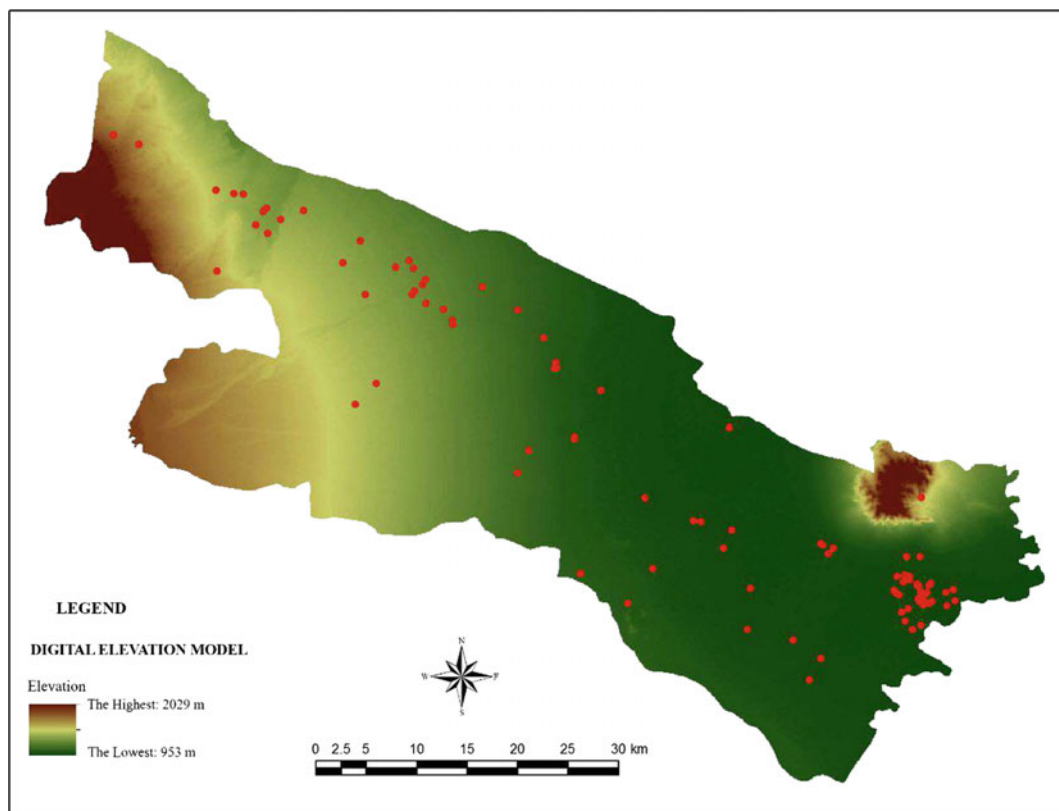---

[12]See: Peterson (2008: 256).

Fig. 4 Sites position on the map of digital elevation model

types of maps of Digital Elevation Model (DEM) which properly displays different elevation ranges of the region, and the sectioned map (Figs. 4 and 5). Five categories for the sites are considered which accordingly, the zones of elevation of less than 500 m, between 500–1000 m, and 1000–1500 m contain 49.9, 32.3, and 13.72% of the sites, respectively. Noteworthy that, no Sasanian site has been found in the zones with the elevation between 1500–2000 m and 2000–2500 m.

Shaping thermal centers with different temperatures, elevation range is influential on various features of ecosystems such as climate conditions, annual precipitation, diversity of faunal and floral species, time span of growing seasons and consequently on the differently adopted subsistence means of various societies all around the world. In addition, impact of this factor on the visibility is definite (Lock et al. 2014; Winterbottom and Long 2006: 1357). Consequently, elevation can determine the levels

of resource accessibility, quantity/quality of inter-group interaction, and visual/cognitive potentials/limits for those groups. Abdanan county provides a proper case for such influences of this environmental factor. Locating between two different geographical zones of alluvial plains and inter-montane highlands, this region shows a diverse character in terms of its altitude.

10 Types of Land Use

In this section, based on the land use of the places where the archaeological sites are located, these sites are divide into distinct groups. According to this variable, 95% of the sites are found in rich and steppe pastures with disperse trees. Two other categories are alluvial plains—sand mounds, and mountainous pastures—alluvial fan pastures, each of which contains 1.4% of Ābdānān's Sasanian sites. In addition, each of the categories of lands of
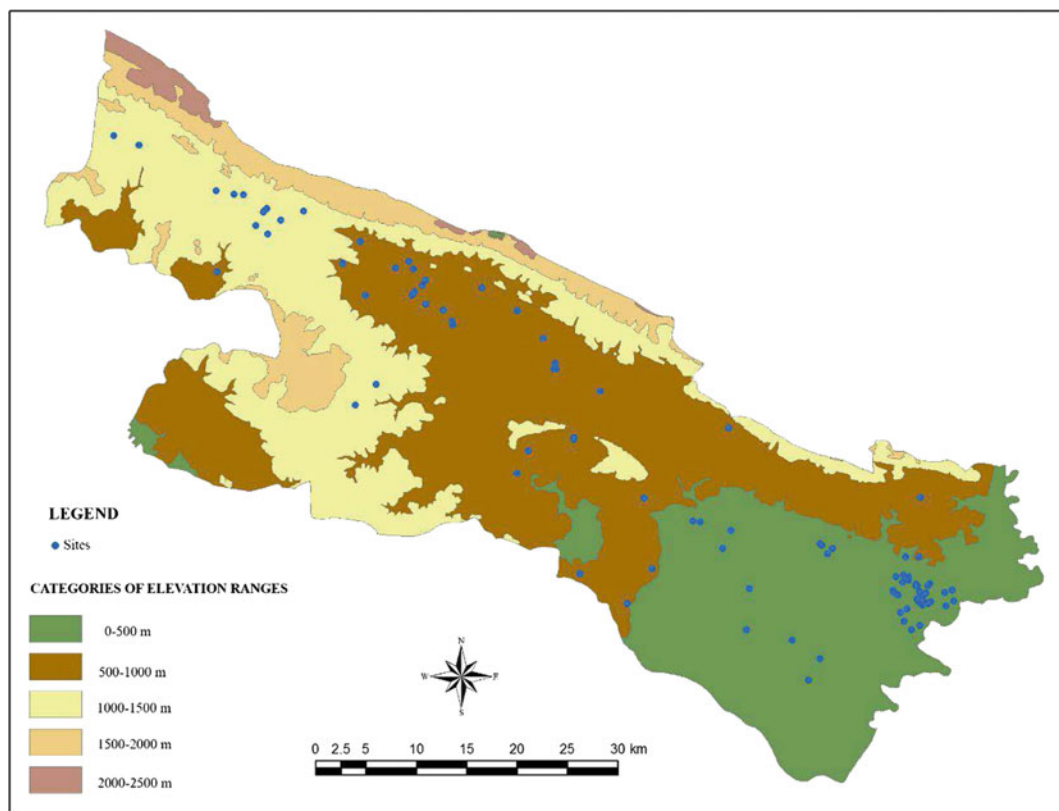
Fig. 5 Ratio of sites positions in relation to elevations

irrigation and rain-fed agriculture holds around one percent of the sites (Fig. 6).

Because of the direct relationship between land use and the subsistence strategy of the people who exploit specific lands, study of this variable is necessary for our research. According to its rich water resource, the under-study region has vast pasturages with high quality. Furthermore, in some parts of the central plain, soil is rich enough for agriculture and, by using irrigation systems in some areas, people are practicing it. But in general, groups are using the small-scale rain-fed agriculture besides the exploitation of pastures.

11 Land Vegetation

Studying the vegetation type of the places in which the Sasanian sites are located, one notice that 11 distinct categories of different kinds of

vegetation in Abdanan are considered. Accordingly, 76% of the archaeological sites are discovered in the grassland zone. Places with the farmlands based on the rain-fed, dispersed rain-fed, and irrigation agriculture, contain 7, 2, and 9% of these sites, respectively. Also, each of the zones of urban and pastures of average quality contains two percent of them (Fig. 7).

Vegetation is an important factor in settlement locating. This factor has a focal role in determining the groups' basic diet, way of subsistence and economy. Binford, in his modelling based on the hunter-gatherer societies and environmental conditions, discussed that the scale of nomadism (number of movements in a year) as a result of population increase, is connected to the availability of the stable food amount (Binford 2001: 269). Therefore, one may suppose that the regions that their vegetation is rich have a high potentiality to attract human groups with different subsistence strategies. Influenced by diverse
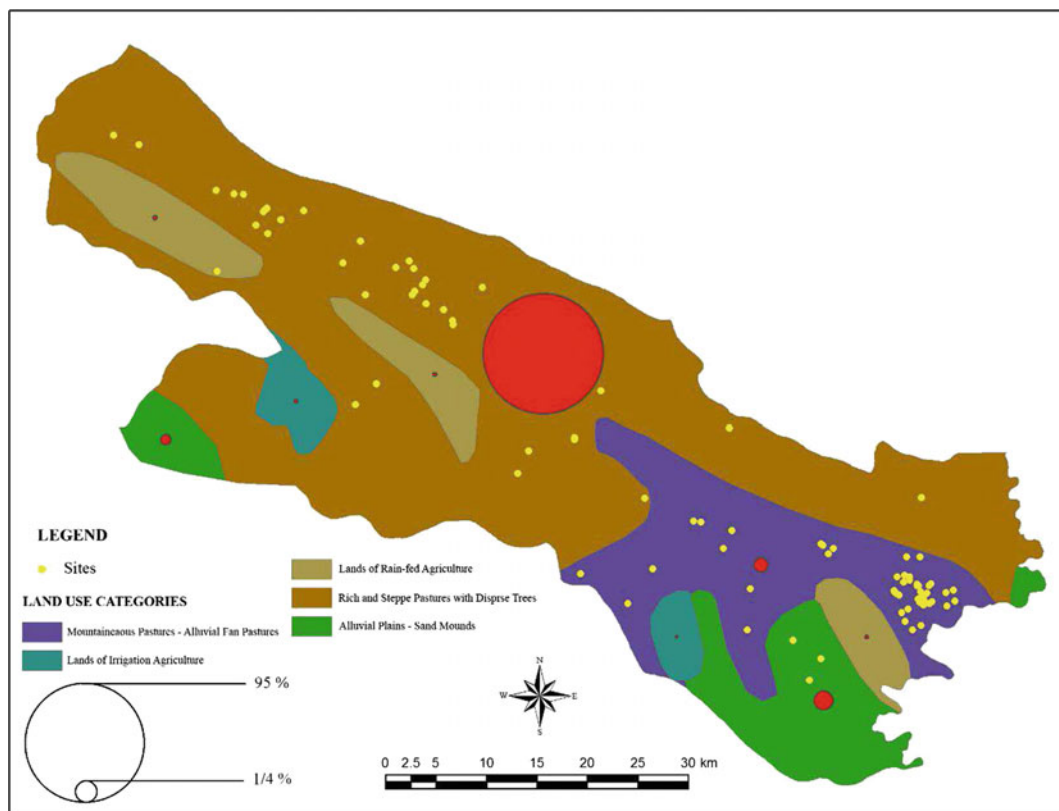
Fig. 6 Ratio of sites positions and their relations to the land use

climatic conditions and having a proper soil for plants in many areas, Abdanan has a considerable diverse vegetation. This is a factor which makes the adoption of agro-pastoral compound economy possible.

12 Distance from Each Other

Based on this factor, six separate categories for the archaeological sites of under examination is considered. Accordingly, 68% of sites are located in the zone of the distance less than 500 m to the nearest neighbour, 10% of them are found in the zone between 500–1000, alongside 7.77 and 12.22% of these sites in the 1000–1500 and 2000–3000 distant zones, respectively (Figs. 8 and 9).

Study of the distance and position of the archaeological sites against their closest neighbor and other sites are important parts of regional spatial analyses. Besides that the analysis of this factor can demonstrate the pattern of sites' location, it gives us the chance to recognize socio-economic systems, spatial/temporal processes of these systems, inter/intra-groups relationships, borders of different populations in the large-scale regional patterns. Analysis of this variable has been under consideration from the first days of settlement pattern archaeology. For example, we can recall the use of central-place theory (Christaller 1966) of human geography which resulted in the successful analysis of the data acquired from the alluvial plains of southern Mesopotamia and southwest Iran (Adams 1965, 1981; Adams and Nissen 1972). In the recent years, according to the development of distributional models of spatial analysis in landscape archaeology, study of this subject has progressed and entered a new stage with more proper
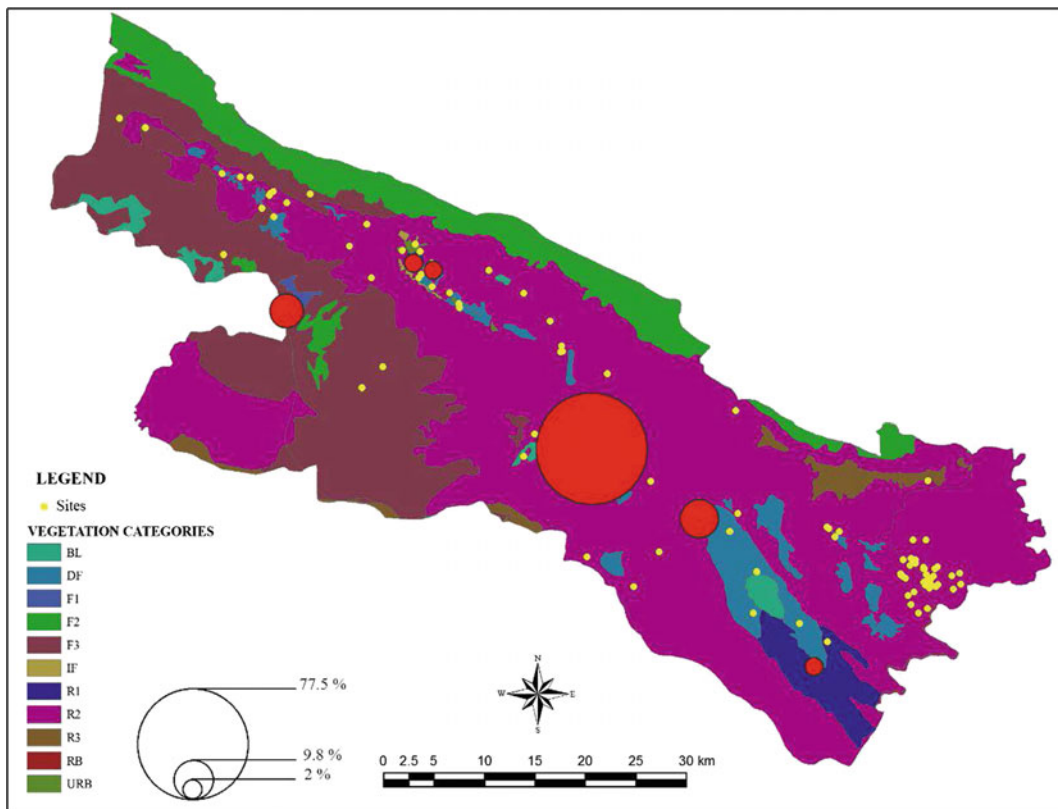
Fig. 7 Ratio of sites positions and their relations to the vegetation

interpretations. However, the noticeable point is that due to the interwoven nature of cultural and natural factors behind the settlement patterns, settlement systems is not easy to distinguish. Concerning the under-study case, we have to mention that these settlements have a high-level integrity which can be a sign for their strong mutual dependency. The regional settlement pattern consists of the related but distinct models. This point is specially more distinguishable when we compare the distributional pattern of the sites of eastern part of Abdanan with the one in the rest of this region. Archaeological sites of the eastern Abdanan are distributed in a concentrated clustery pattern which indicates the intensive interaction among the members of the cluster. On the other hand, other sites in the central plain and mountainous parts of the region are arranged in a linear dendritic pattern. These patterns are shown in a more specified way in the plan of the sites with the buffer zones of 1000 m (Fig. 8).

13 Erosion Level of the Sites Soil

In this section, Abdanan's Sasanian sites are divided into five categories. Accordingly, 45.8% of the sites are located in the zone of low-erosion and 8.3% of them are found in the zone of relatively low-erosion. Other zones of average-erosion, relatively high-erosion and high-erosion contain 16.6, 19.7 and 9.3% of the sites, respectively (Fig. 10).

Here we study the impact of soil erosion, as an environmental factor, in site position. Undoubtedly, characteristics and potentials of soil have a direct influence on the food production and economic growth and decline of human groups. Hence, this factor has a central role in sites' position. However, noteworthy is that in the evaluation of this variable in spatial analyses, it is necessary to study the erosional processes of the span of time after the under-study period.
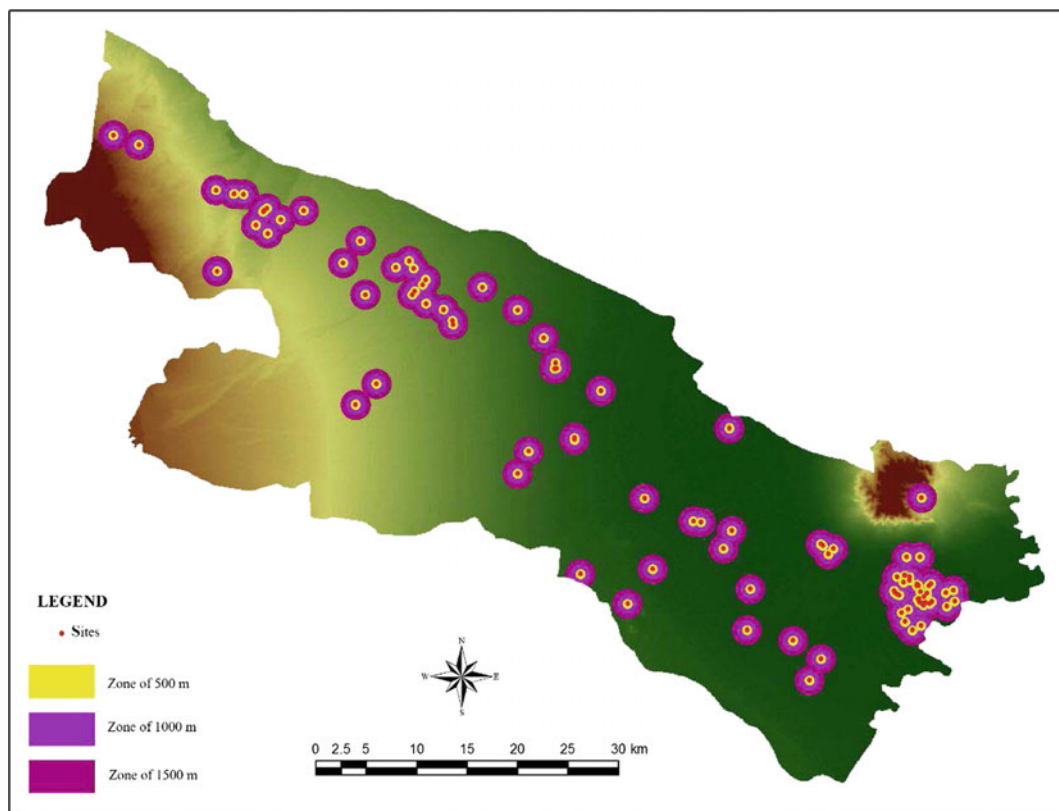
Fig. 8 Sites' relationships within the buffer zones of 500 m

Otherwise, consideration of the impacts of this variable in the analysis can be misleading. Regarding the under-study region, the important point is that apart from the depositional process of the mountains around the central plain, the concentration of human activities on this area increases the soil erosion of it. Additionally, this area overlaps with the most important contemporary population centers of the region (Fig. 11) which is an indication of the related modern processes. But, in general, the distribution of the Abdanan's Sasanian sites is concentrated in the areas within the zones of low or relatively low-soil erosion.

14 Sites' Position According to the Types of Climate

For analysis of the sites' situation according to different climate types, five distinct categories are considered. Accordingly, 47.4% of the sites are

located in the zone of dry climate. The zone of mild semi-arid encompasses three percent of them. Also, severe semi-arid and average semi-arid zones include 46.3 and three percent of these sites, respectively. Noteworthy that no Sasanian site is found in the zone of mild humid climate (Fig. 12).

Climate, as an influential intermediator in the human—environment interaction, is a basic subject in landscape archaeology. Various variables such as precipitation, air pressure, humidity, average temperature and wind are considered under this title. Different combinations of these variables form discrete climate types, each of which has dominated some parts of the world. Besides the point that this factor is under effects of environmental conditions as elevation and latitude, we are to recall that climate shapes the vegetation and wild life of a region. Consequently, the economic-political systems, as well as the culture of any society is formed largely as
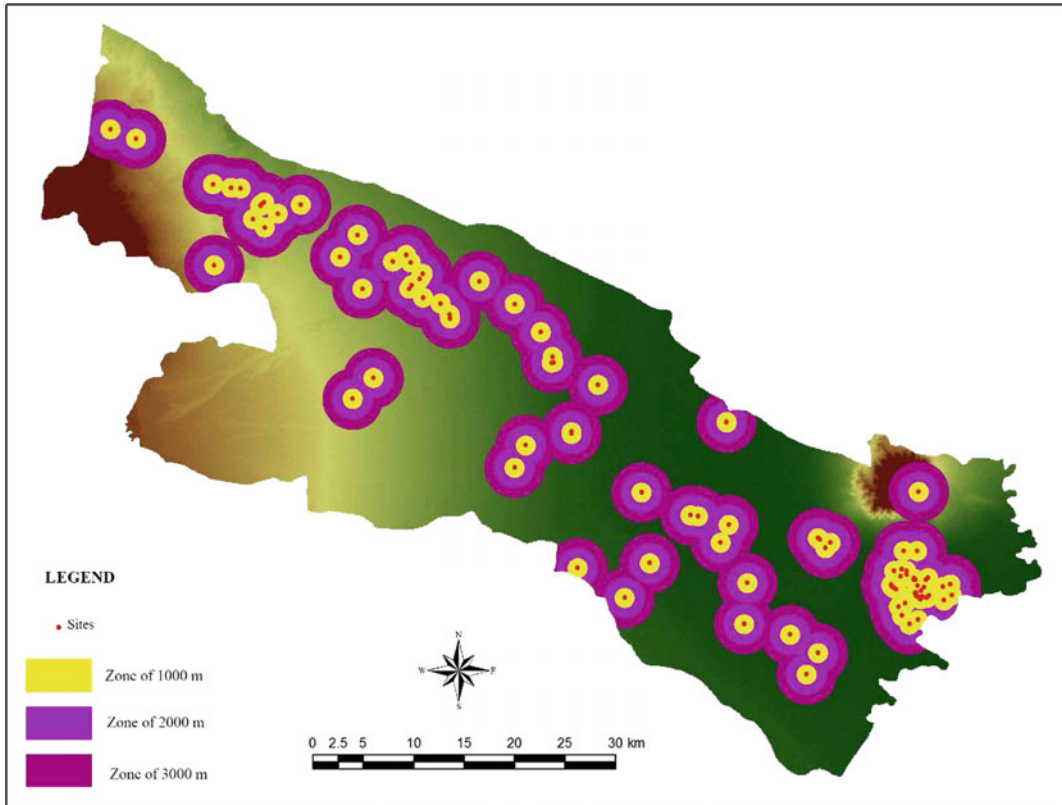
Fig. 9 Site relationships within the buffer zones of 1000 m

an adoption to the climatic condition. Cultural influence of this factor is as much as that sometimes the cultures of various human groups in a vast geographic area is regarded under one title which implies the general dominant climatic type in those regions, such as Mediterranean culture or the culture of dry regions. Although, it is clear that with the technological advances of the modern societies, climate impact on them has considerably decreased, but it does not mean that this factor is insignificant. The heat public debate on the climate change in the international level is a fact admitting this matter. The climate of Abdanan county is discussed above but what is important to note here is that, based on the climatic types of the region, a dichotomy in the sites' distribution is recognizable. According to the other variables, mentioned above, this pattern is applicable to the observed differences between sites of the eastern Abdanan with the dry climate

and the rest of the region with the semi-arid climate.

15   Analysis

There are different paths of cultural evolution. After diffusion from Africa, societies have been separated from each other and have lived different cultural histories. We face with different sets of paths whose formation have been started on the bases of the same foundation (Renfrew 2006: 225). Accordingly, the cultural processes experienced in the highlands of the Central Zagros are different from those in the lowlands of Mesopotamia and Khuzestan. However, as anthropological—archaeological evidences have demonstrated, the interwoven interaction between these regions and the transportation networks of people, materials and information
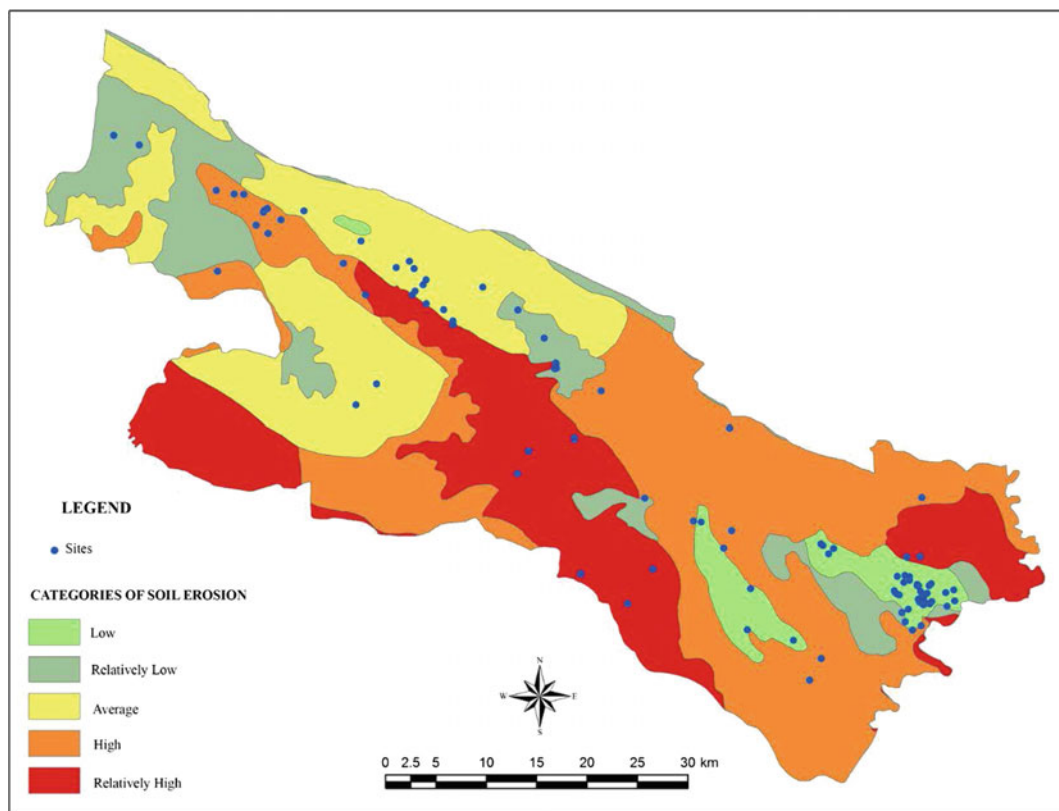
Fig. 10 Distribution of sites according to soil classes

attest that these regions should not be assumed as the confronting territories, but as complementary.[13]

Due to their diversity, strategic significance and marginality, mountainous regions are often very special environments. Mountain contexts are of great importance to people leaving within and in neighboring areas due not only to their richness in natural resources and their great biodiversity but also because of their peculiar socio-cultural dynamics, whose development has

tended to be by the means located often far away from the centers of political power. This marginality can be also extended to movement within these regions where mountain ranges regularly constitute mighty obstacles due to their natural configuration playing a central role in strategy, commerce and travelling (Marrieta-Flores 2014). Besides the environmental variables, cultural factors have been taken under consideration in the analysis of Abdanan's settlement pattern, as well. Strategic situation of the region in the first great fold of Zagros to the east of Mesopotamia bestows it a military importance. Abdanan's position is significant from another aspect, too. This region is situated between lowlands of southwest Iran, southern Mesopotamia—by the intermediacy of Deh-Luran, and the highlands of Central Zagros. This had been followed by cultural interactions which had a focal role in the formation of the

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[13]See: Hopper and Wilkinson (2013) for the parallel settlement-population fluxes between Susiana, Ram-Hormoz, and Deh-Luran in the Prehistoric periods, and between southwest Iran and southern Mesopotamia in the historical periods. Also, See: Carter and Wright (2010) for the similarities in the ceramic samples of Deh-Luran and southern Mesopotamia along the periods between the Early Dynastic phases to the Achaemenid period; Habibi and Heidari (2014) for the same observation about the Central Zagros and southwest Iran in the Sasanian period.

specific cultural identity of this region in the Sasanian period. The study of the related material culture has demonstrated this process.[14] To have proper environmental capabilities for providing the ecological requirements and passageways for the inter/intra-regional relationships towards the socio-political and commercial purposes, Abdanan region has a good potentiality to attract human groups. The varied environment of the Central Zagros and southwest Iran lends itself to different types of land use and both sedentary and mobile modes of subsistence. Lowland plains and intermontane valleys make up the majority of agriculturally productive areas, which along with slopes and foothills are also good for pasturage. Seasonal movement between the uplands and lowlands by mobile pastoralists and semi-sedentary groups has been observed in many ethnographic studies (Hopper and Wilkinson 2013: 36). Abdanan geographical position between the Central Zagros mountains and the lowlands of Khuzestan has led to such a diversity. Different subsistence strategies of the Sasanian period Abdanan has been reflected in the archaeological material and the spatial distribution of them. Different types of pastoralism is identifiable as the pastoral nomadism with its center in the eastern part of Abdanan,[15] and transhumance[16] in the settlements in the vicinity of the large settlements, particularly in the central plain. Furthermore, practicing the agriculture-based economy is recognizable in the irrigation or rain-fed types in the settlements with large scale such as Sarab-e Noghl, Chababe I and II

and Julian, alongside the average scale sites as Posht-qal'e, Panj-Berar, and Farhad-Abad and in the small ones of Tappe Khodadad, Tappe Qal'e and Tappe Abtaf-e Paein. Also, this diversity, from another viewpoint and by the evaluation of the concept of sites' richness,[17] according to the numbers of sites' categories is demonstrated. Utilizing the spatial statistics' index of the standard deviational ellipse distribution, the concentration of the sites, in general, and in each one of the sites' categories, in particular, is assessed (Figs. 13 and 14). Accordingly, it is specified that more than earlier times, the sedentary sites, particularly the vast settlements, are concentrated in the central plain and close to some environmental possibilities such as routes, water resource, proper soil and rich pasture be appropriately exploited. Additionally, the distributional pattern of the types' categories of *castles*, *sedentary sites*, and *vast settlements* overlap. *Fortresses*' concentration has been in the northern part of the central plain where main regional passageways are . Bearing in mind the strategic position of the region, this distribution makes sense. Noteworthy that nevertheless the sites identified as *manor houses* are not frequent and this makes it hard to evaluate their spatial concentration, but their position was probably connected to their neighboring vast settlements. This is true about fire-temples, too. Regional spatial distribution plans of the Sasanian Abdanan demonstrate the interwoven correlation of settled and nomad groups' sites, particularly in the northern part of the region. This point prevents us from considering these parts of society, opposing. The observed associations between highlands and alluvial plains and among nomads and settled groups in the ethnological and archaeological evidence lead us to reconsider the traditional concept of the gap between those people with different subsistence strategies, which was a result of the first interpretations of the ancient Mesopotamia's society (Kamp and Yoffee 1980). Ethnic groups which are *political* entities, included of farmer-pastoralist people are proofs for that model's weakness in interpreting the vertical/enclosed

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[14]This study will be published by the authors in an article, entitled: *Sasanian pottery of Posht-kooh: based on the acquired samples from the Archaeological survey of Abdanan county, Ilam.*

[15]Which is the main center for the winter camps of the Beiranvand nomads, nowadays.

[16]The meaning of this word which is considered here is according to the Jones' definition of it (2005). It is a type of pastoralism arisen from the stable agriculture (Khazanov 1994: 23), and in which while the group is settled in a permanent site, part of it, as herders, leaves it to places with short distances. For different definitions of this word in the anthropological-archaeological literature, See: Myles (1941: 35), Hole (1978: 155–162), Palumbi (2010: 158), Alden (2013), Potts (2014: 4).
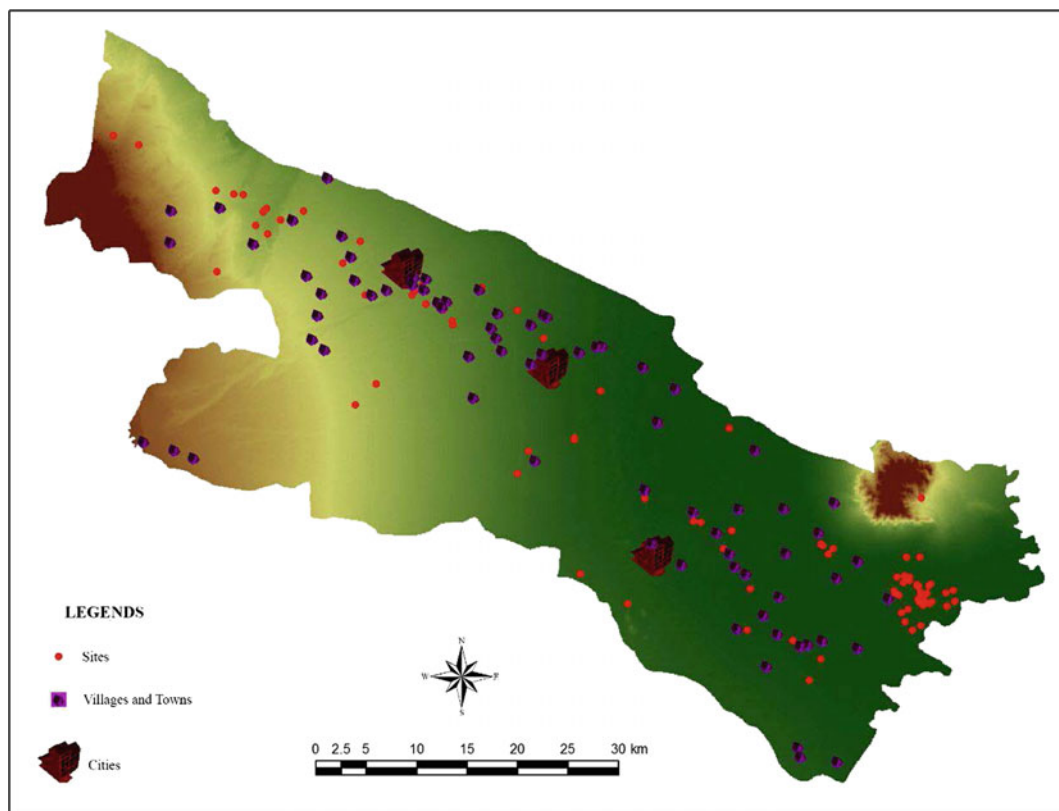
[17]See: Banning (2002: 138–139).

Fig. 11 Sites' position according to contemporary population centers

pastoral nomadism of the Central Zagros. Based on the constant relationship and links among nomads and settled people, such a gap has existed neither in those peoples' mind nor in the partially remained literature of them (Hole 1978: 131). Basically, since these groups have been interlaced in a dimorphic society, even there have not been a distinct territory for nomads and settled agriculturists. Mostly, all or a part of pastoral nomads' pastures have located in the surrounding areas of cities or settlements (Paulette 2013: 135) and the group, politically, has been under control of a larger entity which has had its center in a city —in contrast to what is known about horizontal/open nomadism. Therefore, there is no reason to look for such an imagined distinction among the archaeological material of this case. Enclosed nomadism concept, suggested by Rowton (1974) for Zagros pastoral nomadism, implies the situation in which relationships are close, then symbiosis would appear between

people. Here, socio-political interaction among nomads and settled people is an outcome of the physical environment which demands seasonal movements. Settlement pattern of the Sasanian period Abdanan, demonstrates the position of campsites with the likely basic function related to transhumance, beside the vast settlements. This picture conforms with the compound economy model which is designed towards the maximum exploitation of such a diverse ecosystem. Considerable increase of sites' numbers in the Sasanian period Abdanan, which is attested in all the archaeological surveys in the region, shows the population growth in this period and, consequently, its successful economic system. Recent research projects confirm the phenomenon of increase of Sasanian sites in all types of cities,[18]

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[18]Such as vast settlements of Sarab-e Noghl, Julian, and the Complex of Garr-e Dal-pari—Chababe I—Chababe II in the Abdanan county, Dare-Shahr, and Sar-Gandab in the neighboring areas of Abdanan (Mohammadifar 2014).
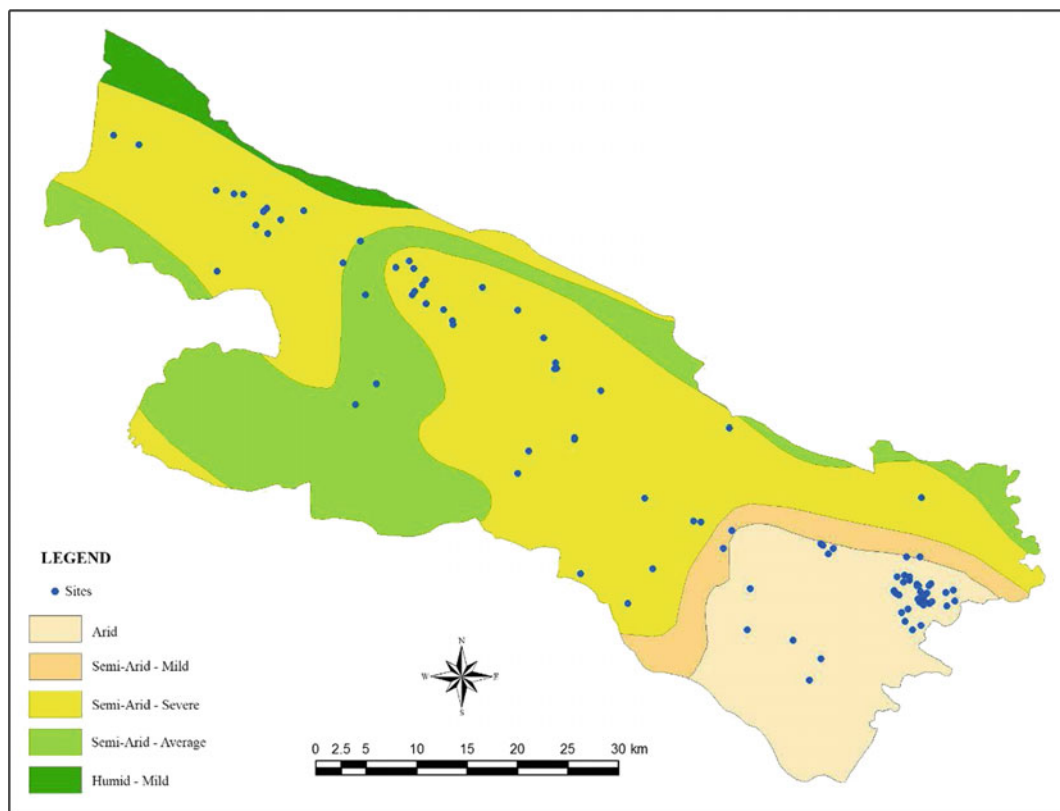
Fig. 12 Sites' position according to the types of climate

villages and castles[19] in the various parts of the Central Zagros in the provinces of Ilam, Kermanshah and Lorestan (Boucharlat 2015). Development of the agricultural lands has been an important fiscal source for the Sasanian central state (Whitcomb 2014: 212). According to their economic politics, they designed a plan to develop the structures of water management such as dams, water-powered mills (Hole 1979: 209), canals and irrigation systems. As it is mentioned above, evidences for these activities are observed through the archaeological data acquired from southwest Iran, Hamrin and Diyala which explain the population growth of these regions in the period. Concerning the study of this condition in Abdanan, we have to consider the

region's strategic location, as well. Growth of the number of fortresses and castles in Abdanan county is linked with the security of the passageways and routes which particularly in the northern mountainous part of the region were limited and important for the local and central state. Although Xusrow I's attention to the region, by the foundation of Weh-Antiyok-Husraw/Rumagan, is clear, but one can consider that from Xusrow II reign, by appearing the crisis in the western border of the empire and the security crisis of its center, the Central Zagros's military and political importance for the Sasanians probably grew, considerably. Considering the visibility concept,[20] we have studied the regions' aspect layer in the Geographic Information System (Fig. 15) according to which it is

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[19]Such as Hezar-Dar, Posht-Qal'e, Panj-Berar, and Julian in Abdanan county, and Seyrom-Shah in the Seymare valley (Ibid.).

[20]For more information about this subject, See: Lock et al. (2014), Winterbottom and Long (2006: 1357).
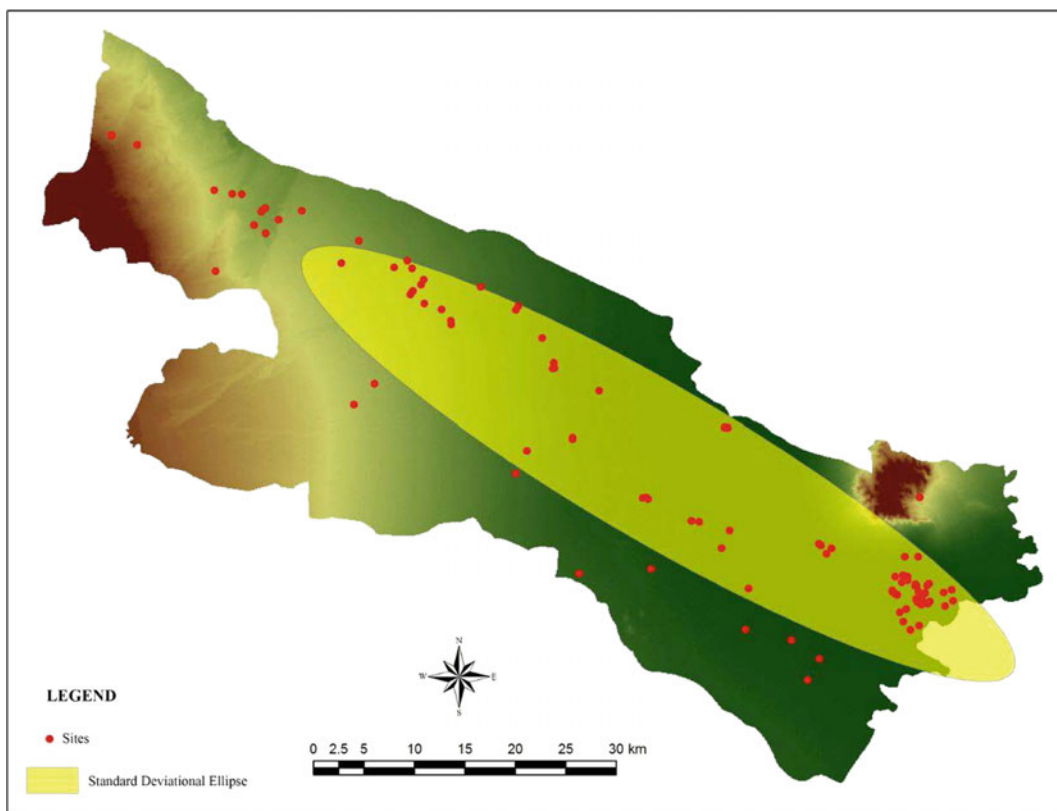
Fig. 13 Standard deviational ellipse of all sites distributions

understood that fortresses are directly connected to the most important linking routes of this region. This point determines the role of routes, as an important factor in the position of these structures. Noteworthy is that, according to the settlement pattern of the nomadic sites specifically in the eastern part of the county, the routes variable has not been as important as water resources for their position.

As it is mentioned above, we are not faced with one single settlement model in the spatial pattern of the Sasanian period Abdanan, but besides the dendritic model, dominant in the general pattern of the region, eastern part of the county provides a clustery model of distribution. It seems likely that, in spite of all connections among the settled and nomadic people which can be assumed in the enclosed nomadism, the eastern Abdanan nomads, based on their subsistence strategy and social system, have constructed their

distinct model of distribution. According to the factors of intra-group relationships, security considerations, availability of flat land, pasture and water, these people represented a sub-culture in the Sasanian period Abdanan society. Therefore, without being a serious threat for the local or central state,[21] these people's military[22] and economic potentials has been exploited, and without an exclusive territory, they have enjoyed a level of independency (Hole 1978: 161).

According to the mentioned evidences, based on the provided political system's support of the

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[21]Nevertheless it is hard to identify the evidences which imply the opposition to the mainstream culture through the partial material culture in the archaeologists' disposal, but the ceramic data of the under-study region is considerably homogeneous. See: Martin (2013: 96–191) for sub-cultures in the archaeological data.

[22]About which there is some evidence available in written documents (Ebn-Balkhi 1984: 168).
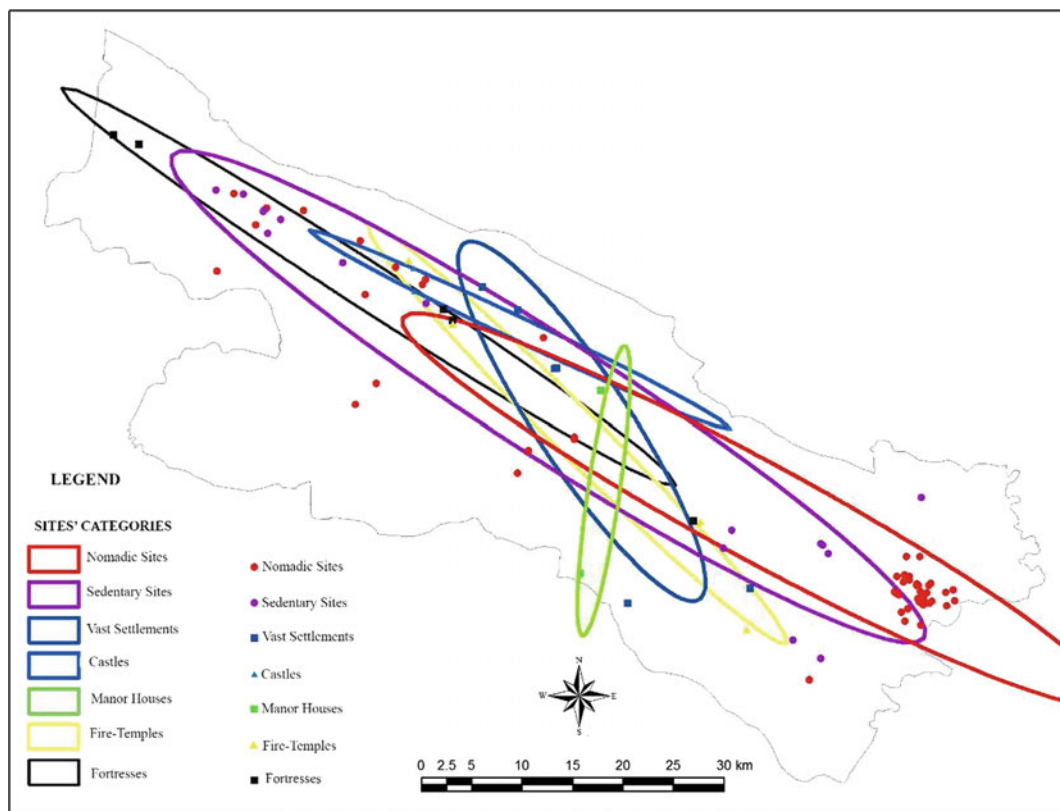
Fig. 14 Standard deviational ellipse of the site categories

central Sasanian state and the economic foundation which has been adopted to the ecological condition, dimorphic social system has faced with a population growth in an inter-regional level. Staying in this scale, we can assume a tendency towards positive correlation between measures of system complexity and the size of the system (Binford 2001: 317–318; Johnson 1982). Based on the model of *complex adaptive systems* (CAS),[23] in the evolutionary process which each of those groups had proceeded, some sub-systems with their special organizations and procedures was formed which in a higher level, like an interwoven network in interaction with each other, shaped the simultaneous hierarchies and the general system.[24] Interaction and the

information flux through the system provide it with the adoptive self-organization capability. In the situation of self-organization, social organizations are in a balanced state, with the high-level potentiality for reaction and dynamic information process and the system is set in the border between stability and chaos which is called by Norman Packard as 'the edge of chaos' (Jones 1997). Notable that non-linear causality, a characteristic of these systems, makes it difficult

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[23]For more information about these models, see: Bern-abeu Auban et al. (2012), Zurlini et al. (2008).

[24]In the under-study region, there is some identifiable sub-systems: Natural ecosystem, included of various environmental variables; Political organization with elites of the

society, who have managed and ruled itand castles, for-tifications and vast settlements in the region, which could not be exploited except with the large-scale investment, are the indications of these local Sasanian aristocrats; Different organizations of subsistence strategies are represented by the eastern Abdanan nomads, agriculturists and transhumant pastoralists—which formed the most of the region's population in the settlements of different sizes; Settlement organization which is indicated in the distributional models of sites along the region; Ideological sub-system which is identifiable according to the remains of centers such as fire-temples and stone graves.
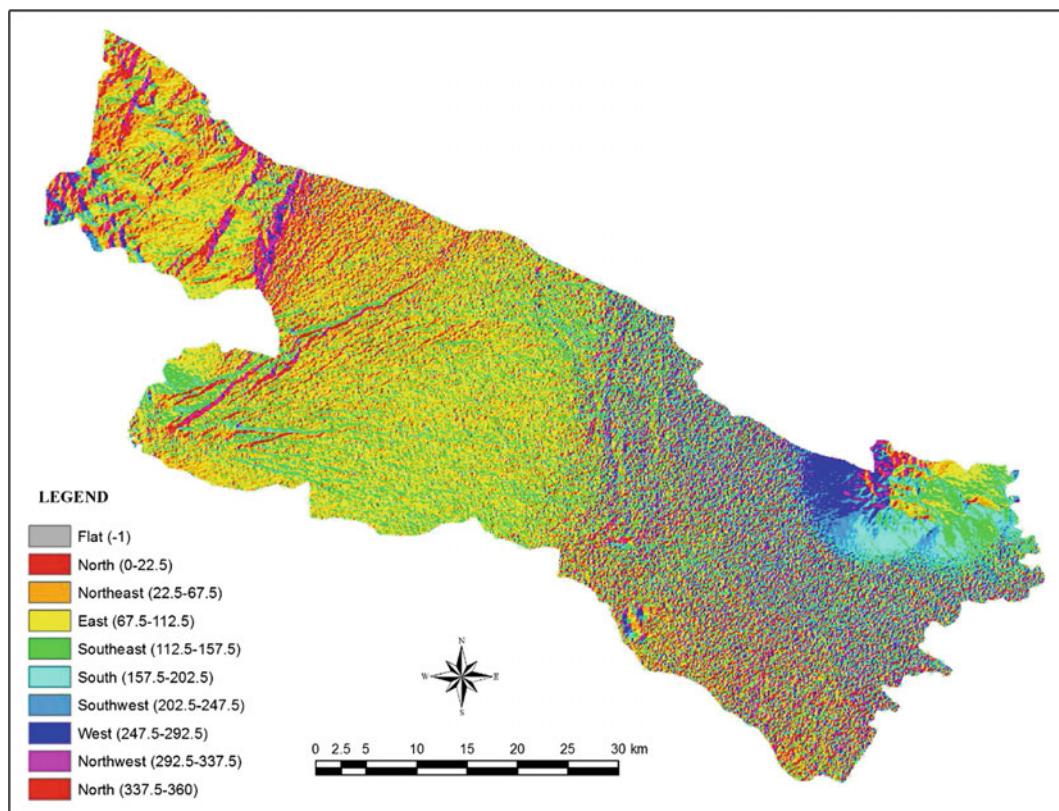
Fig. 15 Aspect map of the County of Abdanan

to predict the outcome of the system-level behaviors based on the analysis of their parts. In other words, the scale and direction of the system's shift is not inevitably matched with the scale and direction of the phenomenon which caused it (Bernabeu Auban et al. 2012: 24). The mentioned evidences for the population growth of the mid-first millennium A.D. from Syria and Mesopotamia to the Central Zagros and Khuzestan determine the status of a general inter-regional system *at the edge of chaos*. At the time, the exploitation of land has reached to a considerably high level. This situation did not last for long, though, because according to the crises of the Early Islamic time, these regions entered a period of demographic and fiscal decline in which population levels and pressure on land resources must have been meager in comparison to the apogee of settlement in the Sasanian period (Wilkinson 2000: 250).

16 Conclusions

The diverse geography of Abdanan provided the required pre-conditions for different subsistence strategies and a compound economy in this region. On the other hand, the strategic situation of this region is important, too. These two potentialities found a proper context to be exploited in the Sasanian period.

During this time, rivalry, economically and military, of the empires of Roman/Byzantine and Sasanian was followed by the large-scale imperial investment and production and, consequently, the intensification of pressure on land resources in some regions. By formation of the new cities and their related socio-economic sections, in association with the sites related to the nomadic population, Abdanan, in the Sasanian period, confronted with a new experience in the

spatial distribution and settlements' location which had its roots in the dimorphic social system and compound economy adopted towards the maximum exploitation of the environmental resources. In a larger context, Abdanan was a part of an inter-regional plan which encountered a social change that has been an inevitable outcome of. It was through such process that the population growth and the equilibrium of the connected sub-systems of the Sasanian period Abdanan, as a part of a larger system, turned to the population decline of post-Sasanian times.

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Relevance of the Diplomatic Activities of Xusrō I Anōšīrvān in China for the Military and Political Situation in the Far East in Sixth Century CE

Katarzyna Maksymiuk

Abstract

The reign of Xusrō I Anōšīrvān highlighted decisive turn in the history of the relations between Iran and China. Initially the king made a political and military alliance with the Turkish Qaghanate which enabled him the annexation of the territories belonging to the Hephthalites (558–568). This remarkable success was assured by the active diplomatic actions in China which assured military and political isolation of the state of the Hephthalites. The break-even point in Sino-Iranian relations was the moment when the relations of Xusrō with the Turkish Qaghanate deteriorated. The Northern Chou Dynasty and later the Sui Dynasty became the natural allies of Sasanian Iran in the Far East.

1 Introduction

Based on the Chinese sources it is possible to track extremely interesting aspect of the Asian history, which is far too often neglected in modern research, namely the Iranian embassies sent to the courts of the Chinese sovereigns (Harmatta 1971: 113–143). Below considerations attempt to analyze the diplomatic actions of *šāhānšāh* Xusrō I Anōšīrvān (r. 531–579) in China and specifically, the influence of these actions on the political and military power balance in the Far East in the sixth century.

2 Outline of the Relations Between Iran and China in Antiquity

Iran was the main intermediary in the trade between the East and the West already in the second century B.C. (Maksymiuk 2017: 527–526). Chinese sources describe it as Anxi (安息) or Bosi (波斯). The name Anxi was adopted by the later Chinese dynasties and most likely refers to Arsacid Iran (Compareti 2003: 200). The name Bosi appeared for the first time in the standard history of the Wei dynasty and refers to Iran under the Sasanians (Daffina 1983: 121; Gungwu 1998: 52–53; Salmon 2004: 23).

The kings of Iran realized crucial role played by the trade routes. The attempts of securing financial interests can be observed already when the Arsacids received the embassy of Chinese

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Han dynasty emperor Wu Ti (r. 141–87 B.C.) in 115–105 B.C. (Debevoise 1938: 43). Attempts to monopolize the trade are confirmed by the information from *The Book of Later Han Dynasty* (*Hou Han Shu*—referring the years 25–220 A.D.), stating that the Parthians thwarted direct trade connections of Rome and China (Hirth 1975: 42).

In 224 A.D. new dynasty, the Sasanians, took over the power in Iran (Tabari: 815–818). The first military actions taken by Ardašīr I (r. 224–242) even before initiating struggle for the throne, were directed towards the Persian Gulf. Probably they were directed to control the maritime routes running through the Gulf and gaining control over the trade with Far East (Bivar 1970: 87–92).

There is no source evidence for any Sino-Iranian diplomatic relations in 3rd–4th available. China which was at that time divided into petty states fighting each other could not influence grand historical processes in Asia (Crespigny 1991: 1–36). Situation was changed at the end of the fourth century when the power was consolidated by the Northern Wei Dynasty (386–534) (Graff 2002: 69–73) and after collapse of the Kushan Empire its Iranian part was annexed by the Sasanians (about 370) (Vaissiere 2016). Vivid Sino-Iranian relations, perhaps through Sogdian intermediary trade (Sasanpour 2013: 7–8), are confirmed by the archaeological founds of the Sasanian silver coins in the Chinese territory. The oldest of them are dated to the reign of Šāpur II (r. 309–379) (Li 2006: 190–194).

Extraordinary activity of the nomadic Huns (Schotty 2004: 93–101) at the beginning of the subsequent century and their burst into Iran during the reigns of Bahrām V (r. 420–439) and Yazdegerd II (r. 439–457) (Litvinsky 1996: 150–151); resulting in capturing of Ṭoḵārestān in 467 by the Hephthalites (Priscus: 12, 22), and the disastrous defeat they inflicted to Pērōz (r. 459–484) (Tabari: 873), forced Iran to search for the allies in the Far East (Harmatta: 136).

Between 455 and 522 ten Iranian diplomatic missions on the court of the Northern Wei dynasty are confirmed (Ecsedy: 123–125). The most renown in the research literature is the embassy of 518 at Chinese sources have preserved the letter of *šāhānšāh* Kawād I (r. 488–496, 498–531) brought the Iranian delegation.[1]

3 Diplomatic Activities of Xusrō I Anōšīrvān

The relevance of the close diplomatic relations with the Chinese kingdoms for the military actions of Sasanian Iran was clearly revealed during the reign Xusrō I Anōšīrvān. The vigorous and active eastern policies were allowed by ending of the war with Byzantium (527–531) (Maksymiuk 2015a, b: 65–67) and concluding in the autumn of 532 of the so-called eternal peace with Justinian I (r. 527–565) (Malalas ….: 3–5).[2] Unlike his father Kawād, who limited his diplomatic relations in the Far East to the state of the Northern Wei dynasty only, Xusrō set the relations also with the Southern Liang dynasty. The sources attest presence of his envoys at the court of the Emperor Wu of Liang (r. 502–549) on September 12th, in 533[3] and on June 10th, in 535.[4] There is no certainty whether these embassies had fixed military goals, it is likely that they might had been courteous visits which means that their role was to transfer the information about enthronization of the new king if Iran and setting peace with Justinian.

Xusrō's involvement in following war with Byzantium (540–556) (Maksymiuk 2015a: 68–74) stopped the diplomatic efforts of Iran in the East. Only the suspension of warfare in the Byzantine front in 551[5] allowed the *šāhānšāh* to establish active policy in China. The imperial court of the Western Wei received the Iranian
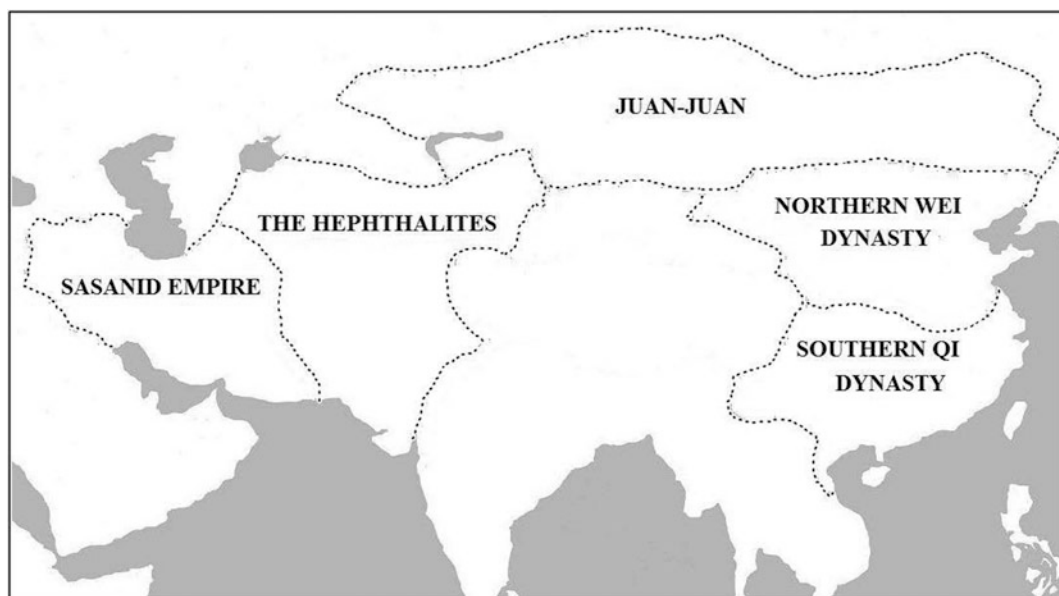
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[1]The letter has been preserved in Chinese translation in *Pei shih* XCVII, 1294b and *Wei shu* CII, 1320b.

[2]Malalas XVIII 76; Proc. *Bell*. I 22. 3–5.

[3]*Liang shu* III, 49a.

[4]*Liang shu* III, 49b.

[5]K. Maksymiuk, *Działania militarne w Lazyce (541–556) —znaczenie Kaukazu w relacjach irańsko-bizantyjskich*, "Kavkaz. Przeszłość-Teraźniejszość-Przyszłość" 1, 2015, pp. 129–138.

Map 1 Asia, c. 500 A.D. (drawing by K. Maksymiuk)

embassy of Xusrō in 553.[6] Following Iranian mission was reported in 555 at the court of the last emperor of Western Wei—Gong (r. 554–556).[7] According to the *Pei Chou shu* the envoys of Xusrō arrived at the court of the Northern Chou Dynasty in 558.[8] It seems that the embassies sent by Xusrō in 550s did not have solely courteous character. They aimed in strengthening of the Iranian influences at the Chinese courts and especially were to lead to political isolation of the Hephthalites (Widengren 1952: 138).

Xusrō's diplomatic action in China was a prelude to the military activities against the Hephthalites. Around 558 Khāqān of Gök Türks,[9] Sinjibu (Silzaboulos)[10] moved to Transoxiana and Bactria while the Iranian army attacked the Hephtalites from the South and the West.[11] After defeating the ruler of Ḡatfar (Warāz),the Hephthalites[12] in the battle of Bukhara, his territories were divided alongside the river Oxus (Amu Darya)[13] (Map 1).

The diplomatic relations with China became especially important for Xusrō after his relations with Khāqān of Türks, so-far an ally, got worsened. As the result of the conquests the Türks controlled the parts of the trade routes to the West.[14] After failed attempts of finding amicable agreement with Xusrō regarding the raw silk trade,[15] Khāqān of Türks took military actions against Iran about 567.[16] At the same time he sent the diplomatic mission led by the merchant

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[6]Pei Chou shu L, 15a; In the second year of the reign of Fei of Western Wei (r. 551–554).

[7]*Pei shih* XCVII, 1294b.

[8]Pei Chou shu L, 15a.

[9]ХУДЯКОВ (2008), Grousset (2005: 81).

[10]Sinjibu in Chinese sources; Istämi of the Orkhon inscriptions (Sinor 1990) identified with Silziboulos mentioned by Menander Protector (Marquart 1901: 216–17; Moravcsik 1958: 422–426; Chuvin 1996: 347–350).

[11]Dīnavarī 69; Daryaee and Rezakhani (2016, p. 50).

[12]Šāh-nama, VIII, p. 157; Warāz in Ṭabarī 895.

[13]Ṭabarī 895; Bivar (2003: 198–201), Harmatta (1962:148), Grignaschi (1980), Harmatta and Litvinsky (1992: 367), Felföldi (2002). Power of the Hephthalites retained in modern day Afghanistan.

[14]Pei Chou shu I, 427a; Harmatta and Litvinsky (1968), Harmatta (1969), Kovalev (2005).

[15]Ṭabarī896; Menanderfrg.10.1; Dobrovits (2011).

[16]Dīnavarī 70; Ṭabarī 895–896; Grousset (2005: 82–83), Moravcsik, *Byzantinoturcica*, pp. 275–276; Sinor (1990: 302–305; 1996).
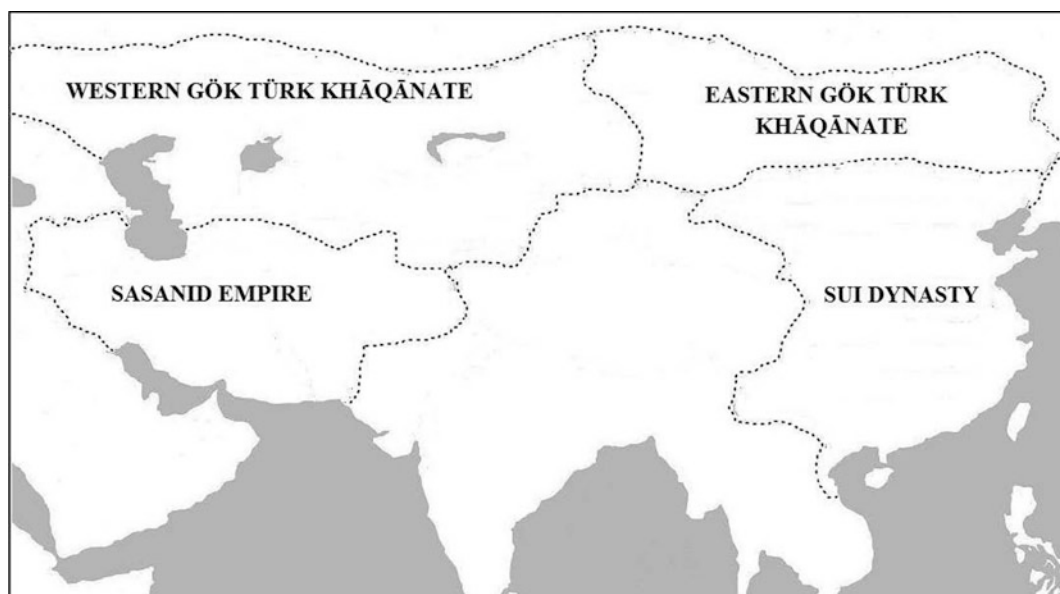
Map 2 Asia, c. 600 A.D. (drawing by K. Maksymiuk)

from Sogdiana Maniakh (568) to the Byzantine court. The envoys were received by Emperor Justin II (r. 565–578). In response to the diplomatic actions of the Türks, the Emperor sent the delegation led by the *magister militum per Orientem* Zemarchos (569). The Byzantine embassy was very well received by Sinjibu.[17] In that situation and especially when the Türks gradually imposed their supremacy north of the Caucasus,[18] for Xusrō the Northern Chou Dynasty was a natural ally against them. Xusrō was the first Sasanian sovereign who took the large scale diplomatic activities in China. The special meaning of the relations with China during his reign is illustrated by the fact that *Xwadāy Nāmag* mentions arrival of the Chinese delegation at Sasanian only with regard to Xusrō[19] (Map 2).

4   Conclusion

Diplomatic activity of Xusrō on Chinese courts in sixth century influenced geopolitical changes in East Asia. The state of the Hephthalites collapsed and the position of the Türks strengthened. Special attention should be placed on creation of lasting Sino-Iranian alliance. The Northern Chou Dynasty and later the Sui Dynasty (581–618) and the Tang Dynasty (618–907) became the natural allies of Iran in Far East.

The alliance of the Sasanians with the Chinese courts did not cease with the collapse of the Iranian empire. The son of the last Sasanian *šāhānšāh* Yazdegerd III (632–651)—Pērōz, sustained his power in Ṭoḵārestān with assistance of the Tang Dynasty and after this was no longer possible in face of pressing Arabs, both him and his sone Narseh found sanctuary on Tang imperial court.[20] Perhaps Sasanian "court-in-exile" survived until at least the middle of the eighth century in the southern Hindukush area.[21]

[17]Joh. Eph. HE 6. 23; Theophylact Simocatta 3. 9. 3–10; Theoph. Byz. 3; Menander frg. 10. 1–3; Menander frg. 13. 5; Harmatta (2000); Harmatta, *Byzantinoturcica*, p. 148; Nechaeva (2007). About the second mission to the Türks, the Byzantine envoy Valentine (575), see: Yin (2003) (accessed on 20 June 2017).

[18]Menander frg. 19. 1; Kardaras (2011).

[19]Ṭabarī 899; Harmatta (1971: 138).

[20]Watson (1983), Daryaee (2003), Khazaee (2015).

[21]Agostini and Stark (2016).

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Frequency of Using Stone Ossuaries in Marvdasht Plain (Fourth–Seventh Century A.D.): Explaining Funerary Patterns Through Agent-Based Modelling

Mahdokht Farjamirad and Kamal-Aldin Niknami

Abstract

Since the last decades of the twentieth century onwards there has been a rapidly growing interest in implementing agent-based modelling (ABM) in archaeological and anthropological studies. The biggest advantage of such model is creating an artificial ancient society and populating it with autonomous agents who live on spatial landscapes. Agent-based models are always implemented in programing language in a suitable platform. In such models agents have been given certain rules of behaviour that define their way of interacting with their environment and with each other. The rules and behaviour of the agents are described by the modeller and most of the time they are stochastic. But they can also be defined based on real archaeological data and certain factors can be parameterised to test the authenticity of a hypothesis or to find out the reasons of an emergence. Two main potentials of agent-based modelling and simulation in archaeology are theory building and hypothesis testing. Accordingly, in this paper an agent-based simulation technique has applied to test two hypotheses concerning the funerary habits of the Sasanian period in the area of Marvdasht Plain. First, that despite general agreement on the rigidity of the Sasanian funerary laws the deposition of bones into an ossuary, for any reason(s), was not followed by everyone. The second hypothesis concerns the distribution pattern of ossuaries. In the first glance it may seem that ossuaries were randomly carved into the bedrocks and perpendicular cliffs, but the random behaviour of the agents in our AMB model proves otherwise.

1 Introduction

Agent-based modelling (ABM) is a computational technique that is particularly well suited to study the behaviour of the agents as components of a complex system in arising specific patterns. In computer simulation agents are autonomous components of the complex system which have causal efficacy through the action and interaction in an artificial environment (Axtell et al. 1996: 5: see also: Lake 2014: 4). The behaviour of the agents in such environment is often random and governed by set of rules defined by the modeller (Romanowska 2015). In agent-based systems these rules cause the creation of patterns or

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phenomena which is known as emergence (Epstein 2006: 31–33). In other words, emergence refers to the nonlinear relationship between multiple heterogeneous components and their interaction in their environment. In archaeology, the patterns that agent-based systems create can be compared to the real archaeological data in order to understand the process of emerging a pattern in an ancient society. This paper is an attempt to introduce agent-based modelling to Iranian archaeology through a case study on the Sasanian funerary remains of Marvdasht Plain.

2 Why Simulation?

The biggest challenge in archaeology is to find an explanation for how societies adapt and evolve in response to changing conditions. In archaeology the subjects of study are no longer alive and the traces of the past societies and civilizations are often incomplete and bias. Within the last two decades agent-based modelling has been providing a way to fill some of the gaps of our knowledge. The application of agent-based modelling enabled archaeologists to reconstruct an ancient society and with the definition of certain rules for the components of such artificial world study the process of emerging specific patterns. In such artificial societies agents can be individual or collective entities (a household, a clan or any other type of social groups) which have been given certain attributes such as age, gender, nutritional requirements, movement capabilities, etc. On the basis of the research question, these attributes can often be parameterized in order to improve our understanding of causality of a specific pattern in an ancient society. It may also help to study alternative behavioural reactions to certain conditions such as environmental changes, political upheavals, migrations and immigrations. Moreover, agent-based models offer the possibility of adding the time dimension which allows archaeologists to repeatedly study certain phenomena within a particular time span.

The most important purposes of a simulation approach in archaeology are theory building, explaining the archaeological records and hypothesis testing. Excavation and survey may help to find archaeological features, but it does not allow testing different scenarios to find out the processes of emerging them. With the simulation techniques archaeologists will be able to reconstruct the interactions of the past and compare them to the archaeological records (Romanowska 2015).

3 Case Study

This approach is a case study in hypothesis testing with the implementation of agent-based modelling. This is an initial model of the funerary landscape of Marvdasht Plain during the Sasanian period and an attempt to find the rule of human interaction with the landscape in shaping the actual funerary pattern.

Marvdasht Plain is located in South-Central Iran in Fars Province, about 60 km North-East of Shiraz. The plain is a large fertile land situated between the Poulvar and Kur River that houses many archaeological remains from the 5th Millennium B.C. up to the Islamic period. In the early third century A.D. the nucleus of the Sasanian Empire shaped here in the ancient city of Istakhr which remained as religious stronghold of the Empire until its down fall (see: Bivar and Boyce 1998; Daryaee 2009: 2).

According to the religious texts and other textual remains of the Sasanian period and on the basis of the Zoroastrian state law imposed by the government, body of the dead must have been exposed to the open air on a bedrock platform on mountain tops (Vendidad VI: 44–51). If people could afford to build a stone ossuary they had to build it. In the case, the means of constructing an ossuary was not affordable to them they were allowed to leave the remains where the body was exposed. Based on the Zoroastrian belief, body of the dead are the biggest source of contamination and burying them is an insult to the earth (Farjamirad 2015: 149). This funerary regulation

was carefully practices by Zoroastrians during the Sasanian time and even later. However, stone ossuaries, as described by Vendidad are mainly abundant in proximity of Istakhr which suggests that they belonged to the wealthy people. It might be true for those ossuaries that bear the name of the deceased and the date that they passed away, but many of these ossuaries do not bear any name. Moreover, abundance of partial human bones buried next to some of these anonymous ossuaries implies that they might have been constantly reused.

These ossuaries might have not been totally free of charge but they could have been a more affordable option for those with little means.

It is, therefore, likely that some of these receptacles were public or family ossuaries that they were emptied and reused many times. This hypothesis is quite compatible with Sasanian date religious books. Based on these texts, every ossuary must have been emptied after fifteen years as bones were no longer considered a source of contamination and they could be buried in the ground (Boyce 1975: 326). It may also explain the abundance anonymous stone ossuaries in the vicinity of Istakhr as they could have been gradually added to the landscape if any ossuary was available for new burials. Each ossuary, based on its capacity, could have been used tens of times within more than four hundred years that means every dweller in the city of Istakhr or in nearby villages and settlements could have used them. Nevertheless, it is important to see if the number of ossuaries that exist now could accommodate the entire population of the city and its sub-districts for more than four centuries.

The body of this modelling is shaped based on two hypotheses; first, whether or not in Marvdasht Plain the practice of depositing the bones into an ossuary was followed by everyone. The second hypothesis concerns the distribution pattern of ossuaries. In the first glance it may seem that ossuaries were randomly carved into the bedrocks and perpendicular cliffs, but the random behaviour of the agents in the model, as we see in the results, proves otherwise.

4 Elements of the Model

Due to the lack of excavations and surveys in the area of Marvdasht we are facing the considerable lack of demographic data. Same is true about the historical texts and accounts as they do not reveal useful data concerning the population of the city. According to Ibn-E Balkhi, the eleventh century historian, before the rise of Islam, Istakhr was one of the most important Sasanian cities. With the arrival of the Arab Muslim conquerors the people of Istakhr agreed to pay a poll-tax and instead they remained in charge of their territory. But in the 30th year of Hijra they revolted and, As Ibn-E Balkhi's accounts bear witness, Abdollah Ibn Amer attacked the city of Istakhr and killed around forty thousand people (Ibn-E Balkhi 1921: 116, 117). This number was mentioned again in Shiraznameh written by Zarkoub Shirazi in fifteenth century which seems to be based on the earlier work by Ibn-E Balkhi (see: Shiraznameh 1931: 17). In eleventh century when Ibn-E Balkhi visited Istakhr it was a village with a small population of nearly hundred households (Ibn-E Balkhi 1921: 127, 128).

Although these accounts do not provide us with an accurate demographic data but we may assume that the city of Istakhr must have had a larger population than hundred heads as it was described by Ibn-E Balkhi. On the other hand, considering the total surface of the city the number of forty thousand heads seems quite exaggerating. It might make more sense if we consider that this number refers to the population settled in the entire Marvdasht Plain and not only in the limits of the city. The discovery of several Sasanian settlements in the neighbourhood of Istakhr suggests that this city was likely a regional capital surrounded by a hinterland of smaller suburban settlements and dwellings (Whitcomb 1979: 368).

Considering all the aforementioned demographic issues, the parameters in this agent-based model are defined close (between 100 and 400 heads) to the accounts of Ibn-E Balkhi from the population of the city during eleventh century. The main reason for selecting this parameter is to

avoid falling into exaggerative discussions and wrong results. Running an empirical study, as it is the objective of this paper, with this defined parameter is more reasonable than a completely stochastic number. Following the goal of this study, the patterns created by agents will be compared to the real data that was earlier observed and collected during a field survey (Fig. 1).

The presented agent-based model is implemented in NetLogo that is a multi-agent programmable modelling environment (Wilensky 1999). It is created by instantiating the landscape of Marvdasht Plain and then populating it with artificial agents that represent individual households. The dwelling areas in the plain are coloured in green and the mountainous areas are in brown (see: Fig. 2). The elevation factor is based on the digital elevation model (DEM) of the area that can be sensed by the agents. It means that they construct houses in the plain and ossuaries in the mountains. Following the demographic discussion above, the selection of a settlement by agents is completely random and it is not limited to the city of Istakhr.

Agents have been given the average lifetime of a healthy individual and the rate of reproduction and death are initialized based on the real life averages. Each individual has a specific rule of behaviour to get married and fission a household when they reach the age of sixteen. Birth and death are randomly defined which means some agents may or may not reproduce or they may die earlier or later than a certain age. Death probability is for all ages, but it increases above the age sixty. With the death of all households the house disappears on the model.

The understudied period in this model is 476 years that covers the entire Sasanian period from its rise to its down. Each movement is one calendar year during which the life updates, new agents get born and they reach fertility age, fission a household, reproduce, get aged and die. At the beginning the settlement areas are populated by number of houses including two to five family members. The number of households was defined as a variable that can be changed between one to hundred households.

Each death results in creating an ossuary that continues to receive bones up to its full capacity. Based on the real data, ossuaries were divided into three types of small, medium and big size that can accommodate skeletal remains of four to eight individuals. When the capacity is full they do not receive new bones for fifteen years. Eventually, the lack of space for a new burial
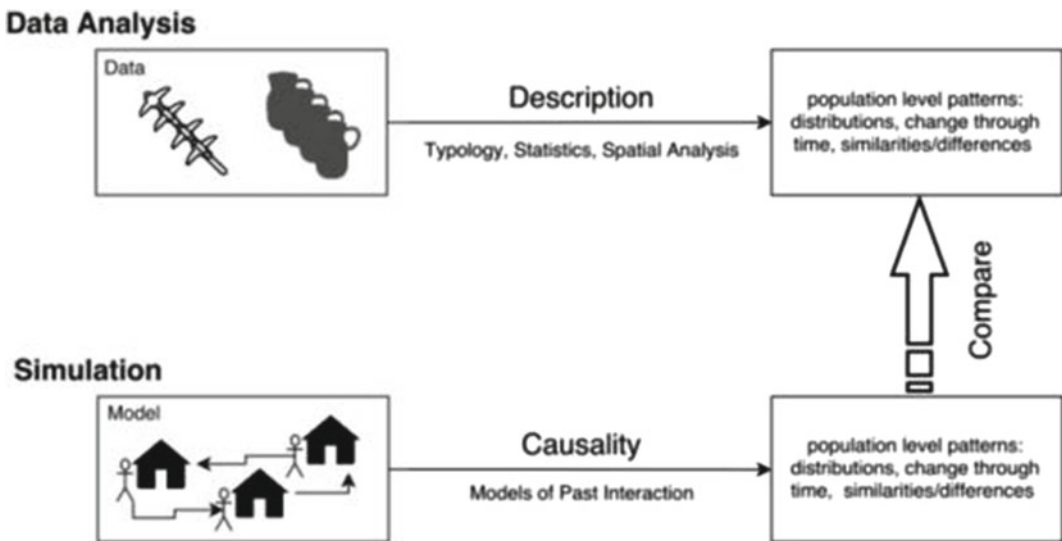

Fig. 1 The comparison between the results of an archaeological data analysis and a simulation enable archaeologists to explore the processes that underlie the archaeological evidence (Romanowska 2015)

results in creating new ossuaries. Each ossuary empties after fifteen years and start to receive bones again.

As mentioned before, it is likely that the real ossuaries were not used by everyone in the area of Marvdasht. This might have been due to affordability of the ossuaries or it could have been a personal or family preference. Nevertheless, in this model all agents are obliged to use these ossuaries in order to compare the number of ossuaries in simulation with real data.

5   Model Analysis

The main interest in simulating life and death in the Sasanian landscape of Marvdasht Plain is to calibrate an artificial population to the historical records which is the real number and capacity of the stone ossuaries. The parameterized number of the households in this model is between hundred and four hundred as the minimum and maximum population size in this area. Selecting a specific number of households before running the model generate number of houses with number of people (between 1 and 5 persons) living in them. For instance, parameterizing the model with hundred households generates a population size between 380 and 410 heads which randomly rises and declines during a run. Figure 2

represents the interface of the model before and after a single run.

In this study the parameter values of thirty, fifty, seventy and hundred households were chosen and each time the model was ran hundred times. With the change of parameter the number of population varied between seventy to four hundred heads. For a better understanding, in Fig. 3 we illustrated the results with the average of each hundred group of runs and for each group we compared the average number of ossuaries with the real data. These results explicitly indicate a considerable difference between the real data and the number of ossuaries in simulations. The average number of ossuaries in tests one and two are very close to the real data. It means that the chance of using ossuaries as a public service must have been equal for all the dwellers only if the population size in the Marvdasht Plain within more than four centuries was never bigger than 350 heads. However, with increasing the population size the need for more ossuaries rapidly soars. As the results in Fig. 3 shows, the population size in this model has never been more than thousand heads at its peak. It means that even with the maximum time span for using ossuaries and the minimum number of people still more ossuaries were needed to accommodate the entire population of Marvdasht Plain.
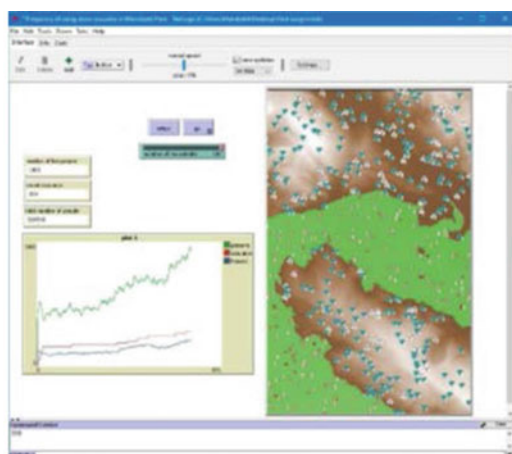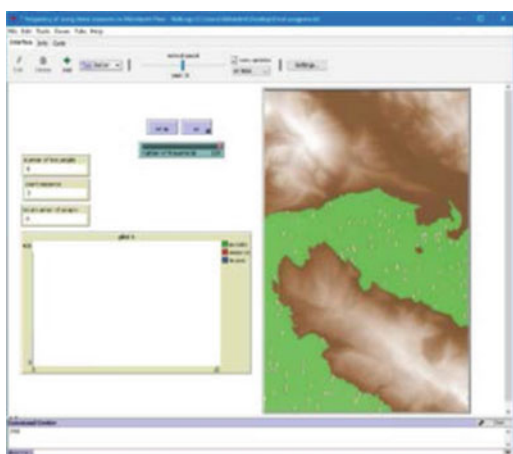

Fig. 2 The interface of the model parameterized with hundred households before and after the run. The monitor of the model includes the DEM of the area of Marvdasht.

Brown coloured areas represent Kuh-e Rahmat and Kuh-e Hossen areas and the green surface is Marvdasht Plain
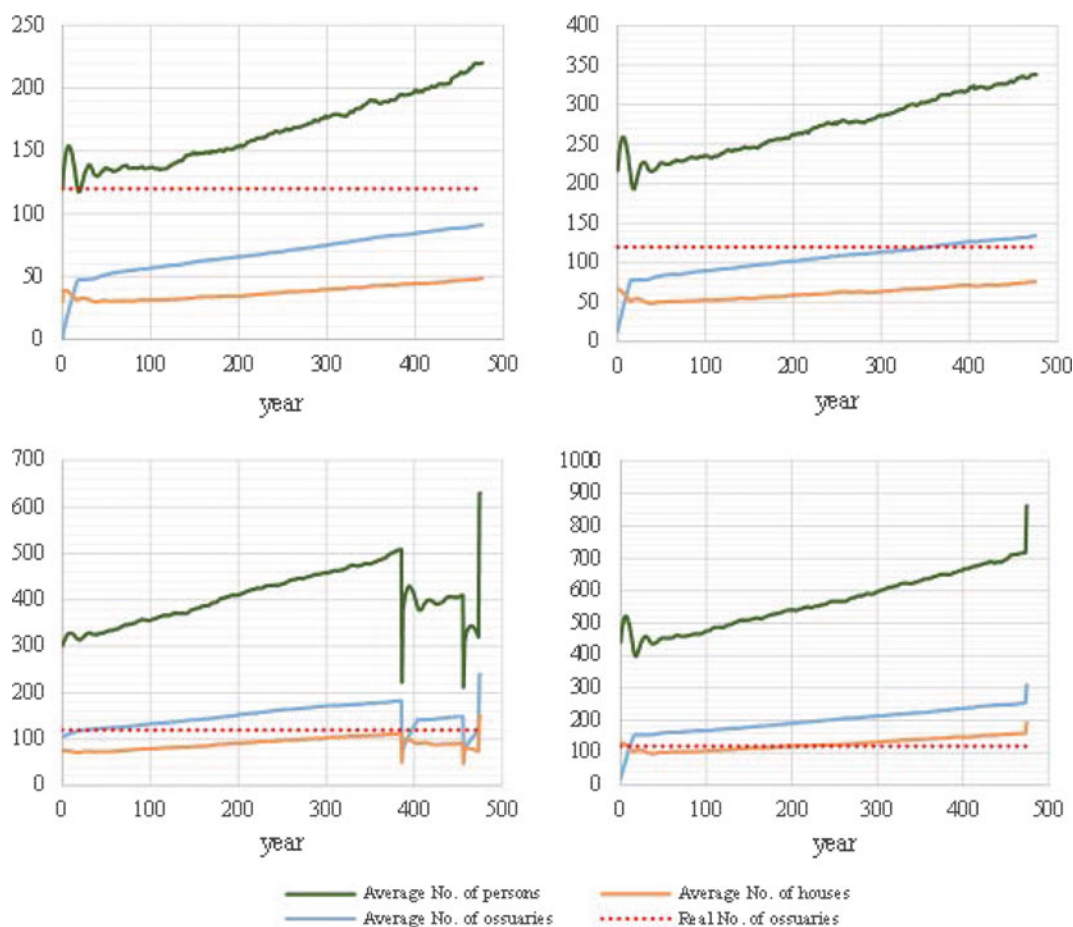
Average No. of persons ——— Average No. of houses ———
Average No. of ossuaries ——— Real No. of ossuaries ·········

Fig. 3 Average number of the people, ossuaries and houses simulated with thirty, fifty, seventy and hundred households and compared to the real number of ossuaries. (Top left) the average of hundred runs with thirty households. (Top right) the average of hundred runs with fifty households. (Bottom left) the average of hundred runs with seventy households. (Bottom right) the average of hundred runs with hundred households

One must also bear in mind that this is only the case if the ossuaries were public and all of them were constantly reused. But, as it is evident, some ossuaries in Kuh-e Rahmat and Kuh-e Hossein in Marvdasht Plain bear the name of the dead which means they were private and they had possibly not been reused (see: Farjamirad 2013: 175–180).

In order to test our second hypothesis regarding the dispersal of ossuaries, the results of 400 times of running the model was recorded and analysed in Arc Map. The general belief about the burial practice of the Sasanian period is that burials must have taken place in remote areas and

mountains, and ossuaries should have been made of stone and sealed with plaster. This is a general order with no further details about the location of ossuaries or their directions. It may imply that the distribution pattern of ossuaries in Kuh-e Rahmat and Kuh-e Hossein is the result of a completely random behaviour. But a simple comparison between the real data and the results of the simulation are quite contradictory. Figure 4 shows that the real ossuaries are mostly located very close to the city of Istakhr and they are almost adjacent to the city. Most of these ossuaries were created on the lowest slopes of the north-eastern corner of Kuh-e Rahmat and south-

● Real Data   ● Simulation Results

Fig. 4 Distribution pattern of real ossuaries and the simulation results shown on the digital elevation model (DEM) of Marvdasht Plain, Kuh-e Rahmat and Kuh-e Hossein. (Top left) simulation results of hundred runs with thirty households. (Top right) simulation results of hundred runs with fifty households. (Bottom left) simulation results of hundred runs with seventy households. (Bottom right) simulation results of hundred runs with hundred households

Fig. 5 Frequency histograms of the elevations of ossuaries based on the real data and the results of the simulation. Both data sets were analysed in Arc Map
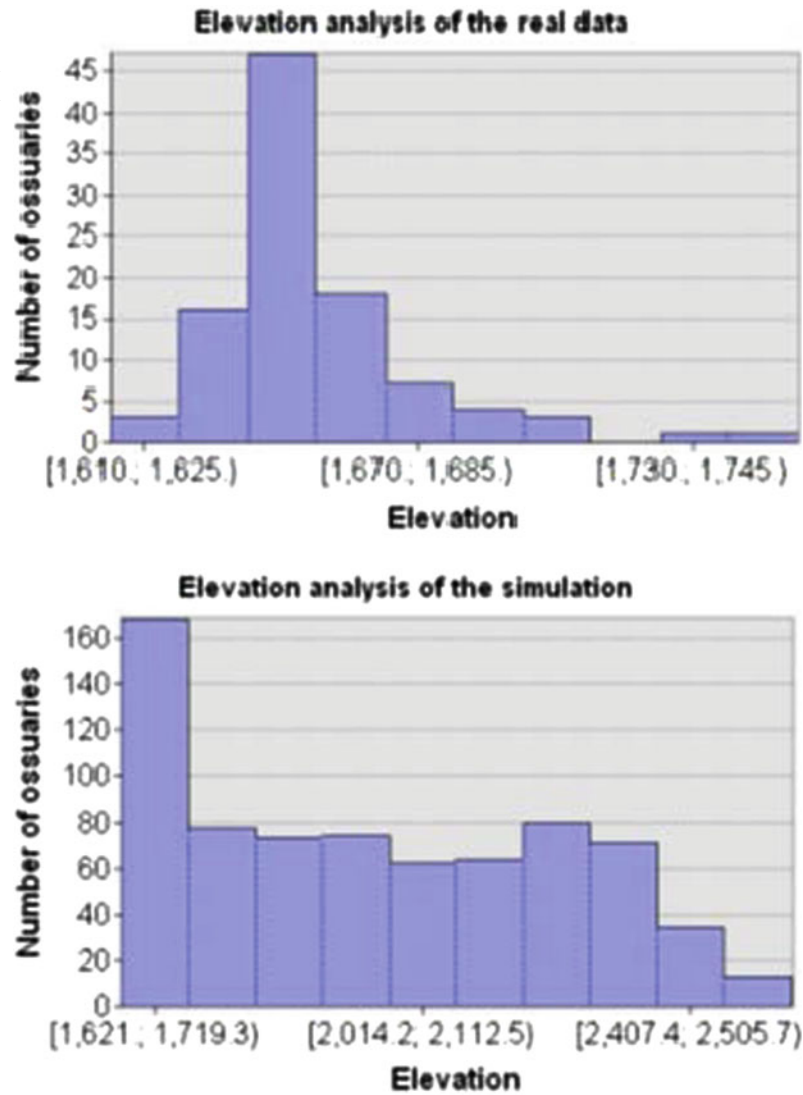
western side of Kuh-e Hossein which is the closest location to the settlement areas (see: Fig. 5). The results of the simulation lend credence to our hypothesis in a similar way. Although, most agents in the model have chosen less elevated locations to create an ossuary, the pattern that they have created is completely different from the real one. We may, therefore, safely conclude that selecting the location of burials in the Sasanian landscape of Marvdasht Plain was hardly a random behaviour and burial places were deliberately chosen in proximity of the settlement areas.

6 Conclusion

As this study indicates, one of the advantages of agent-based modelling is generating the data that can be compared to the real data in order to understand the processes that underlie the archaeological evidence. However, it is

important to note here that agent-based modelling should not be considered as an instant solution to all archaeological obscurities. This is a tool that allows us to test competing hypotheses and eliminate those that although theoretically possible are unlikely to have happened.

This research reflects the high capability of agent-based modelling in hypothesis testing. As the output of this simulation points out despite the abundance of stone ossuaries in Marvdasht Plain, the preparation of ossuary as a post-mortem ritual was not followed by everyone. There is no doubt that the anonymous ossuaries scattered in Marvdasht Plain could have been public or family tombs that have been constantly reused. But the simulation results strongly suggest that they could have not yet accommodated the entire population of the plain. This simulation also indicates that the site selection for the construction of ossuaries was not the result of a random behaviour but the proximity and adjacency to the city of Istakhr was definitely a priority.

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